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VII. THE AMPHIBIOUS ASSAULT ON NORMANDY

By the first week in June 1944 Allied forces in the British Isles had entered upon their final orientation for what has been termed history's greatest gamble. Two years of preparations, with the benefit of experience gained principally in other theaters, had qualified the attackers to test the defenses that the Nazis had erected around Fortress Europa. The Germans were aware of the assembling of the largest Allied force ever employed in an amphibious assault operation, a force that required a fleet of 4,100 vessels of all kinds,<sup>1</sup> and yet in the assault the Allies achieved a tactical surprise which, according to General Eisenhower, was almost more than he had dared hope for.<sup>2</sup> He explains the surprise as the result of the German belief that the unsettled weather of the first part of June was unfavorable for launching the invasion at that time. Furthermore, German radar was rendered ineffective by Allied aircraft, and the Allies assaulted at low tide and in daylight, following the period of a full moon, whereas the Germans had expected that the Allies would undertake their assault at high tide and during the period of a waning moon. General Eisenhower also relates that the Germans believed the approach to the beaches which the Allies had selected was so strewn with reefs and subject to strong ocean

<sup>1</sup> Omaha Beachhead, p. 2. Other naval and army studies give different totals, as for example, the naval report, "Amphibious Operations, Invasion of Northern France," speaks of 4,000 vessels and "thousands" of smaller craft. The Report by the Supreme Commander to the Combined Chiefs of Staff on the Operations in Europe of the Allied Expeditionary Force, page 52, states that "over 5,000 ships and craft were employed in the actual assault." Because of its careful preparation and the fact that it gives a specific total, the Omaha Beachhead figure is used in the text above.

<sup>2</sup> Report by the Supreme Commander, op.cit., p. 21.

RESTRICTED

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currents that it would be extremely difficult to approach the shore in landing craft.

It is unnecessary to recount the story of the assault landings in detail, since they already have been ably and fully covered in a number of studies. Because of its importance as the larger scale landing, the Omaha Beach operation has been covered more adequately than that at Utah Beach.<sup>3</sup> Nevertheless, in view of the accounts available elsewhere, and in the interest of conserving space, only certain highlights of the assault operation will be touched upon here.

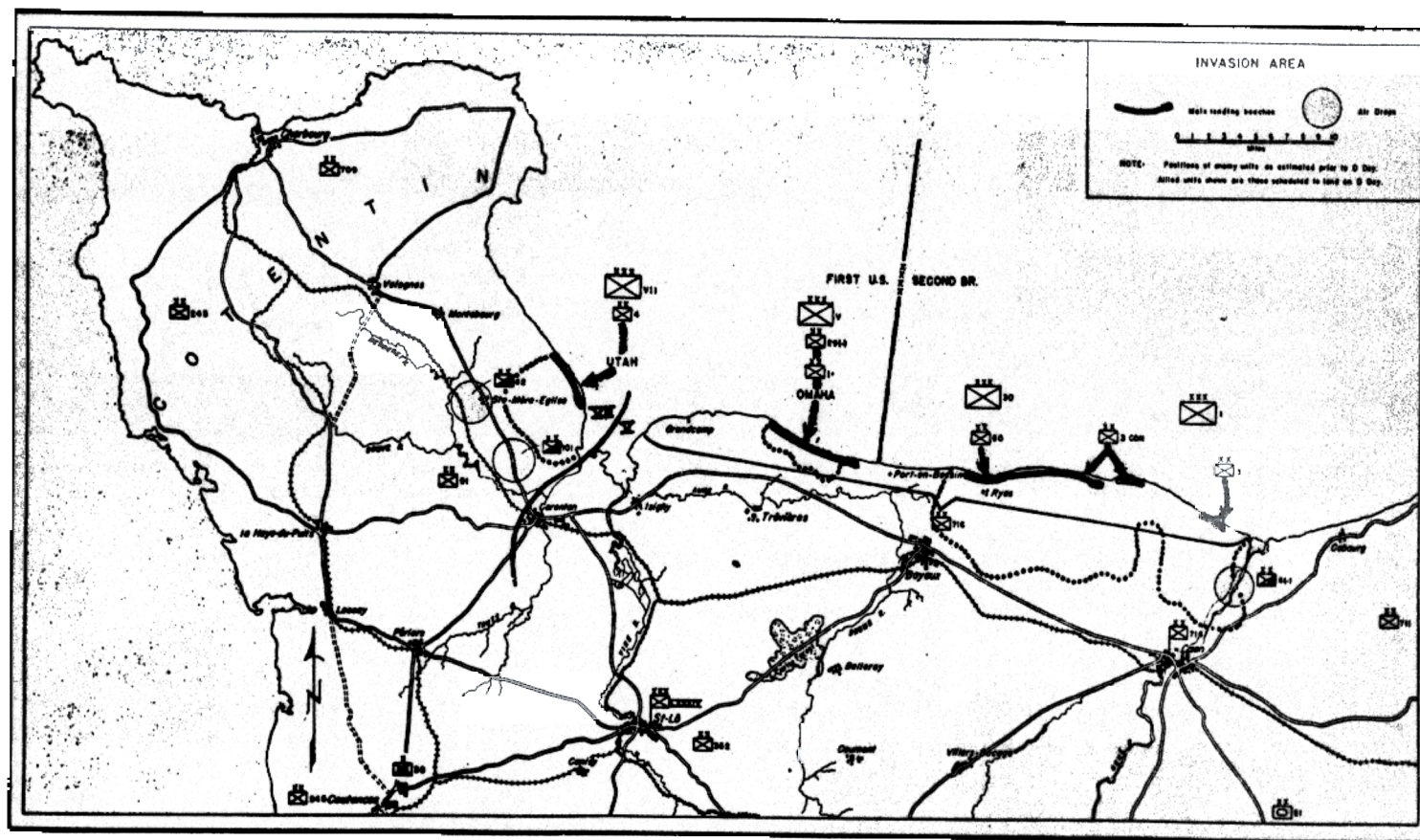
One of the most important contributions to the whole operation was performed by the mine sweepers of the Western Naval Task Force, which made possible the passage of convoys to the assault beaches with only comparatively few losses by mines.<sup>4</sup> The air cover provided by the 9th Air Force supported by British aircraft also was particularly effective in support of the landings. Not only had their reconnaissance work prior to D-Day provided useful and accurate information for the landing by the assault forces, but following D-Day they provided effective protection to the U.S. assault forces were hampered on D-Day by the relatively poor visibility, and so were unable to destroy the German defenses along the Normandy coast, particularly those near Omaha Beach. The weather had an additional adverse effect on the Allied landings in that the waves in the transport area off the beaches averaged 3 to 4 feet high and breakers of similar height were hitting the beaches.

Another important element contributing to the success of U.S. land-

<sup>3</sup> Omaha Beachhead; First U.S. Army, Report of Operations, 20 October 1943 to 1 August 1944; Report on Operation Neptune; and Report by the Supreme Commander, op.cit., pp. 19ff.

<sup>4</sup> Omaha Beachhead, p. 38.

BEACHHEADS ESTABLISHED BY 2400 HOURS: 6 JUNE 1944



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ings was the work of the Army-Navy Special Engineer Task Force whose assignment was to clear the gaps through the obstacles which the Germans had erected in great number on the beaches below the highwater mark. These forces were given a half hour in which to clear gaps for the approach of the landing craft carrying the infantry assault forces. Special forces were to have been supported and their work supplemented by the use of amphibious DD tanks, but the high waves and the effectiveness of German defense batteries knocked out a large number of them as they approached the shore. The main purpose of the tanks was to supplement the fire power of the Naval guns and the bombings of Allied Air Forces. It should be noted that they achieved a greater degree of success on Utah Beach than they did at Omaha.

#### The Assault at Omaha Beach

The assault waves of V Corps at Omaha Beach were made up of the 16th Regimental Combat Team of the 1st Infantry Division, the 116th Regimental Combat Team of the 29th Division, and Ranger units.<sup>5</sup> The strength of the force is indicated by the fact that the 16th RCT, including 3,502 troops attached only for movement to the beach, amounted to 9,829 personnel, who were provided with 919 vehicles and 48 tanks.<sup>6</sup> To handle this one unit required two transports, six LSTs, 53 LCTs and 5 LCI(L)s; small craft which would be launched from the larger ships in the transport area, included 81 LCVPs, 18 LCAs (British), 13 other landing craft and 64 Dukws.

The initial waves of the assault force touched shore at 0635.

<sup>5</sup> First U.S. Army, Report of Operations, op.cit., Book 1, p. 41.

<sup>6</sup> Omaha Beachhead, p. 36.

RESTRICTED



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cording to a summary account in The First U.S. Army Report of Operations, heavy seas, underwater obstacles, fully manned enemy defenses and loss of supporting weapons by the sinking of landing craft made the outcome of the assault very precarious.<sup>7</sup> The fully manned enemy defenses included the presence of German divisions recently deployed along the coast. Furthermore, the defense was strengthened by the fact that the air bombing in this area had been largely ineffective and the naval guns had been hampered by the configuration of ground which made observations difficult.<sup>8</sup>

Salt water and sand interfered with the operation of many weapons of the two RCTs, and it was late in the day before the beaches could be cleared sufficiently to protect wading troops from enemy fire from the prepared positions. In consequence, the troops suffered severe casualties and were handicapped by the loss of much equipment in landing. The men had to swim or wade ashore, in many cases, and heavy weapons had to be discarded. There was considerable delay in opening many beach exits. Some sections of the assault convoys had landed at the wrong places and, consequently, many of the beaches were congested, furnishing good targets for enemy fire. Initially, the Engineers were unable to clear sufficient gaps through the mine fields ashore and heavy casualties were caused by mines. Snipers and machine gunners seemed to concentrate on officers and leaders causing disproportionate losses among these personnel. However, small groups united under leadership of the remaining officers and certain enlisted men. When

<sup>7</sup> Ibid.

<sup>8</sup> Report of the Supreme Allied Commander, op.cit., p. 22.

RESTRICTED

the command groups came ashore, reorganization was effected and the small groups consolidated and moved inland.

Reference to the loss of vehicles and equipment is explained in the study Omaha Beachhead by the statement that if the halftracks, jeeps and trucks survived the difficulties of getting close enough in to avoid deep water, and of unloading safely under artillery fire, they found themselves on the narrow strip of sand without any exits open through the impassable channel embankments. Wherever the vehicles landed close together, a few were sure to be immobilized by engine trouble and the others were caught in a hopeless traffic jam. Enemy artillery and mortars then had easy targets. The loss of equipment during the first landings, affecting all types of material, presented difficulties for maintaining scheduled beach operations. Engineer supplies necessary for clearing the beaches were seriously reduced. Losses in radio equipment were particularly heavy, and water damaged many sets that reached the beach. Three-fourths of the 116th RCT's radios were destroyed or rendered useless in the landing. This loss hampered control of the assault infantry both on the beach and throughout the day.

However, during the course of D-Day the Engineers made steady progress in their vital task of clearing and organizing the beach for moving inland. As the tide lowered, the remainder of the demolition teams went to work again on the exposed obstacles, and they succeeded in completely opening three gaps on which work had been undertaken in the morning, made four new ones and widened some of the others. By evening, 13 gaps were fully opened and marked, and an estimated 35 percent of the obstacles on the beach had been cleared. By the latter part of the day,

RESTRICTED - 169 -

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along the beach flats, units of the Engineer Special Brigade Group were making gaps in the embankment, clearing mine fields and doing what they could to improve beach exits. More of their units and equipment were getting ashore, although mislandings were still occurring. In the important task of clearing away for vehicles to move inland, thus relieving congestion and permitting further landings, the fire of Navy destroyers and the advance of infantry units cleared up immediate resistance at one of the low points in the embankment, and these developments proved decisive. Once it had become possible to move the vehicles on to the beaches, however, it was found impossible to move them very far inland because of continued enemy resistance in St. Lorient. For a time all movement was stopped and vehicles were jammed bumper to bumper all the way up the exit road. But by 1600 hours, the Engineers had pushed a branch road south of the planned route toward the coastal highway.

In summarizing the difficulties and accomplishments at Omaha Beach on D-Day, the study Omaha Beachhead states:<sup>9</sup>

"The assault on Omaha Beach had succeeded, but the going had been harder than expected. Penetrations made in the morning by relatively weak assault groups had lacked the force to carry far inland. Delay in reducing the strongpoints at the draws had slowed landings of reinforcements, artillery and supplies. Stubborn enemy resistance, both at strongpoints and inland, had held the advance to a strip of ground hardly more than a mile-and-a-half deep in the Colleville area, and considerably less than that west of St. Laurent. Barely large enough to be called a foothold, this strip was well inside the planned beachhead maintenance area. Behind U.S. forward positions, cut-off enemy groups were still resisting. The whole landing area continued under enemy artillery fire from inland.

"Infantry assault troops had been landed, despite all diffi-

<sup>9</sup> Omaha Beachhead, pp. 107-108.

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culties, on the scale intended; most of the elements of five regiments were ashore by dark. With respect to artillery, vehicles, and supplies of all sorts, schedules were far behind. Little more than 100 tons had been got ashore instead of the 2,400 tons planned for D-Day. The ammunition supply situation was critical and would have been even worse except for the fact that 90 of the 110 pre-loaded dukws in Force "O" had made the shore successfully. Only the first steps had been taken to organize the beach for handling the expected volume of traffic, and it was obvious that further delay in unloadings would be inevitable."

Estimates of losses on D-Day were based on fragmentary and incomplete returns. Casualties for the V Corps were said to have been in the neighborhood of 3,000 killed, wounded and missing. The two assaulting RCTs (16th and 116th) lost about 1,000 men each. Losses in material were considerable, including 26 artillery pieces and over 50 tanks. The 4042nd Q.M. Truck Company got ashore with only 13 of its 35 trucks, but this loss was said to have been much higher than the average for this type of unit. The Navy estimated a loss of about 50 landing craft and 10 larger vessels, with a much larger number of all types damaged.<sup>10</sup>

#### The Assault on Utah Beach

As previously mentioned, the sea-borne assault of the VII Corps at Utah Beach was on a smaller scale and encountered less resistance than that which landed at Omaha. However, the assault was supported by the air drop of two U.S. airborne divisions in the area behind the beach-head. These two divisions formed the American part of what General Eisenhower has called the largest air drop of its kind ever attempted.<sup>11</sup>

Beginning at approximately 0200 hours on 6 June 1944, the air drop of

<sup>10</sup> Not until nightfall of D-Day was there any enemy air activity near Omaha Beach; then 22 enemy planes attacked ships off the beach without causing any serious damage.

<sup>11</sup> Report by the Supreme Commander, op.cit., p. 22.

~~RESTRICTED~~ - 171 -

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all Allied troops employed 1,662 aircraft and 572 gliders of U.S. 9th Troop Carrier Command, and 733 aircraft and 355 gliders of the 38th and 46th groups of the RAF. In their landings the two American airborne divisions faced greater difficulties than their British counterparts, owing to the clouds and the atmospheric conditions. The 101st Airborne Division, which was scheduled to land southeast of Ste. Mere-Eglise, was dropped over a very large area and had difficulty in assembling for action. This difficulty resulted from the fact that the Pathfinders had failed to locate the exact area for the parachute troops, and the inexperience of some of the pilots. Additional elements of the Division which could not be included in the initial air lift were brought in by gliders on the evening of 6 June.

The 82nd Airborne Division scheduled to land west of the main road between Carentan and Cherbourg also suffered a broad dispersion of the units dropped. This dispersion is said to have been so great that as late as the morning of 8 June the Division had only 2,200 men under unified control. Nevertheless, the Division had received reinforcements by air on the evening of 6 June, and had made contacts with patrols from the 8th Infantry Regiment in the vicinity of Ste. Mere-Eglise. The resupply of the two airborne divisions was effected through 24 resupply missions. Of the 800 aircraft carrying the two American divisions, only 20 were lost, and of the 512 aircraft and the 510 gliders dispatched in the reinforcement moves, only 8 were lost.<sup>12</sup>

The sea-borne assault at Utah Beach was begun by the 1st and 2nd Battalions of the 8th Regimental Combat Team landing at approximately

<sup>12</sup> First U.S. Army, Report of Operations, op.cit., Book 1, pp. 44-46.

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0630 hours and followed the other battalion of that regiment and the other regimental combat team of the 4th Division.<sup>13</sup> The initial landing actually was made in error 1500 yards southeast of the prescribed beach. It is stated that the lightness of the German resistance may be attributed to this accident. When the battalion turned to flank the beach defenses, it found the beach strongly defended at the location of the prescribed landings. There was some delay in further landings due to beaching difficulties, but combat echelons of all the infantry regiments and divisional support, artillery and tank destroyers, and engineer battalions were ashore by night.

The Naval Shore Fire Control parties landed with leading infantry and artillery battalions. In spite of casualties, they maintained excellent communications until the need for Naval gunfire no longer existed. Against indistinct small targets, these parties were able to adjust the fire from the Naval ships offshore, and to shift the fire of interchanged ships without loss of contact or accuracy. In addition, at Utah Beach Naval gunfire support was given to the airborne divisions, and for a time this was the only heavy fire support they had. Supplemented later by the work of the self-propelled artillery of the 9th Division, such Naval support proved particularly effective at Utah Beach. The artillery had been landed with small losses, crossed the beach obstacles without difficulty and delivered supporting fire as early as H plus 90. During the most critical initial stages, this was the only field artillery ashore. The VII Corps also received effective support

<sup>13</sup> Ibid, p. 46. The main elements of the 90th and 9th Divisions were to follow in order.

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from the 9th Air Force which was unhampered by the poor visibility that prevailed at Omaha Beach.

To the east the British Second Army landings had scored impressive early successes.<sup>14</sup> The British airborne units had seized the Orne crossings north of Caen and a wide breakthrough was made in the coastal defenses by the assault troops landed from the sea. Some elements of the German Army held out tenaciously in some of the bypassed strong-points. In the latter part of the afternoon a panzer division counter-attacked in the Caen area, and after some initial success, was stopped short of its main objective, that is capturing the towns of Caen and Bayeux. The British Second Army nevertheless had pushed inland at some points as far as six miles by the end of D-Day, when four of its divisions were in action.

#### The Course of the Fighting Through September

General Marshall has observed that by D plus two the Allied beach-head was secure. The V Corps had made relatively slow advances at Omaha Beach until D plus three, but thereafter it drove inland from 15 to 20 miles on a broad front. On 13 June it was ordered to hold its existing positions. By that time junction had been firmly established with Allied forces on both flanks. On D plus one the VII Corps advance at Utah Beach had brought contact with the 101st Airborne Division and on the following day contact was established with the 82nd Airborne Division.<sup>15</sup>

During the ensuing period the VII Corps sought to obtain maneuvering space in order to carry out its principal mission of capturing Cher-

<sup>14</sup> Omaha Beachhead, p. 111.

<sup>15</sup> First U.S. Army, Report of Operations, Book 1, p. 52.

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bourg. In preparing for this mission it was first necessary to cut off the northern end of the Cherbourg Peninsula, and by 18 June this had been successfully accomplished. On the following day the 4th Division, operating under the VII Corps, occupied the greatly contested city of Montebourg which the Germans had attempted to hold on the personal orders of Hitler. General Eisenhower maintains that the effort to hold Montebourg was a major error of judgment, for its capture enabled the U.S. forces to drive so rapidly towards Cherbourg that the Germans did not have time to organize the defenses of that city.<sup>16</sup> In other words, had the Germans withdrawn earlier they might have been able to hold out at Cherbourg as they did subsequently at Brest.

On 22 July three divisions and a cavalry reconnaissance squadron began the coordinated advance on Cherbourg. By 26 June the Cherbourg defense commander and the local admiral had surrendered, and on the following day the German commander of the arsenal also surrendered. Capitulation of the outlying harbor ports followed in rapid order, and by 2 July the last remnants of the German forces in the Cherbourg area had been taken captive. The First Army reports the campaign as completed, however, on 26 June.<sup>17</sup> The capture of Cherbourg ended another phase of the invasion, for according to Field Marshal Rommel, with Cherbourg in Allied hands the elimination of the beachhead by the Germans was no longer possible. As will be discussed later, despite the speedy Allied advance on the city, its capture had been delayed beyond the date initially projected, and the Germans had effected such thorough

<sup>16</sup> Report by the Supreme Commander, op.cit., p. 32.

<sup>17</sup> First U.S. Army, Report of Operations, Book 1, p. 69.

RESTRICTED

destruction, that along with what was termed wanton destruction by the American forces,<sup>18</sup> it was not until 16 July that the first Allied ship could discharge its cargo at Cherbourg.

Meanwhile, the First U.S. Army had resumed activities in the direction of St. Lo and on 18 July that city fell into Allied hands. General Eisenhower's plan of the campaign was then to inaugurate a double attack, by the British in the Caen area and by the First Army in the St. Lo area, to break out of the limited area in which the Allied forces were confined. Execution of this plan was delayed from 19 to 25 July because bad weather prevented the necessary air force bombings which were to precede the attack. On the latter date, however, the First U.S. Army, preceded by heavily concentrated bombing, launched its assault, which on 27 July achieved the famous breakthrough below St. Lo and started the chase of the German Army which was not halted until the Allies reached the border of Germany itself.

Nevertheless, three important developments should be noted. First was the activation on 1 August of the Third U.S. Army on the Continent, and the change in its assignment from the capture of Brittany, and particularly the Brittany ports, to an operation that endeavored to destroy the German 7th Army opposing the U.S. forces at the base of the Normandy Peninsula. Second was the German counterattack at Avranches which was intended to split the First and Third U.S. Armies by a drive to the sea at the base of the Normandy Peninsula. This counterattack was successfully resisted, and there then began the famous Battle of the Falaise

<sup>18</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chapter on Cherbourg, p. 2.

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Pocket was the diversion of the Third Army from the contemplated conquest of Brittany noted above, leaving the capture of the Brittany ports largely to French forces. In other words, General Eisenhower clearly modified the plan for the early capture and development of the Brittany ports in an effort to destroy the German forces west of the Seine. This action nullified all of the pre-D-Day plans which had envisaged U.S. development of the Brittany ports as bases for supplying a steady advance of Allied forces eastward toward Germany.

The race of the Third Army across France below Paris is a well known development. Simultaneously, the First Army with assistance from French forces, insured the fall of Paris on 25 August, 40 days before its expected capture, and then the Army turned northeastward for a rapid drive to the German border. The speed of the advance of these two Armies imposed extensive supply and transportation problems, problems which were met in part by large air drops and the establishment of the Red Ball Highway Express route. It is unnecessary to enter early into a discussion of the extent to which a lack of available supplies halted the American armies, but it has been recorded that on 25 September General Patton was ordered to halt his assault on Metz, which he believed within his grasp, because of a shortage of further supplies of gasoline and ammunition.<sup>19</sup> In part, this order resulted from General Eisenhower's decision to concentrate on supporting the Allied Armies in a northward drive, that is toward the Cologne plain and the lower crossings of the Rhine, because he believed that these would afford the most advantageous

<sup>19</sup> Article by Col. R.S. Allen, Washington Post, 29 Dec. 1945.

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route for a thrust into the heart of Germany.<sup>20</sup>

The outstanding success of the two American armies was in a large part paralleled by the almost simultaneous advance of the British and Canadian forces along the channel coast. Rouen was captured on 1 September, Le Havre on 12 September and Antwerp on 4 September. These ports, located in the area assigned to the British, and captured by the British and Canadian forces, were later to be turned over wholly, or as in the case of Antwerp, in part for U.S. operation, as a substitute for contemplated operation of the Brittany ports.

It should be observed that the capture of Antwerp on 4 September with the city's port facilities relatively intact, could not be exploited immediately for the discharge of reinforcements, again because of General Eisenhower's decision to use all available Allied forces for the drive toward the Cologne plain. Consequently, the mouth of the river leading to Antwerp remained in German hands for nearly another two months, and it was not until 26 November that the first U.S. cargo ship could be brought in for discharge at the port. In sum, the latter part of September became a static period for U.S. Armies, and therefore it is possible to turn to a study of transportation and supply organizations that initially supported the combat forces.

#### Early Supply and Transportation Organizations on the Continent

For approximately the first two months of the campaign, the First U.S. Army retained control of all U.S. supply and transportation operations on the Continent. In the combat zone this control was exercised

<sup>20</sup> Criticism of General Eisenhower's decision is given in Ralph Ingersoll's Top Secret.

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through the Army's general and special staff agencies. **Then as the fighting pushed inland from the coast, the Army established and progressively moved forward a rear boundary line, releasing supervision of the rear area to the Army-attached Advance Section. On 1 August, however, Advance Section (ADSEC) was divorced from First Army jurisdiction and came under the control of Headquarters, Comzone, which at that time became operative on the Continent. Thereafter, ADSEC functioned as a base section, always in the area immediately behind the First and Third Armies, which were administered by the 12th Army Group, later redesignated the Middle Group of Armies.**

As ADSEC, Comzone, moved forward, other base sections were formed under Comzone to take over jurisdiction of the territory released in the **rear areas.** Each of these base sections, including ADSEC, contained transportation staffs, formed of T.C. personnel. **Furthermore, during August, the Office of the Chief of Transportation began to function on the Continent in the same position that it had held in the U.K., namely as a special staff unit of Comzone headquarters. It should be observed, however, that from shortly after D-Day until they returned to OCOT headquarters in August, personnel and divisions of the OCOT had been stationed on the Continent and had engaged either in preparing for future T.C. operations, or actually operating as a part of the Transportation Section, ADSEC.**<sup>21</sup> **This was particularly true of the Marine Operations Division and the Movements Division, OCOT, Comzone.**

The first contingent of the 50 officers and 80 enlisted men of the Transportation Section, ADSEC, reached the beaches on D plus three, and

<sup>21</sup> History of the T.C. in the ETO, Vol. IV, Section I, pp. 1ff.

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with other elements of ADSEC planned to carry out the initially assigned functions of operating the minor Normandy ports and Cherbourg; clearing supplies from the ports to Comzone depots and units; establishing traffic control in the major port area; transporting POL products to the First Army; transporting part of the First Army maintenance tonnage to Army maintenance areas; and preparing for the establishment of Comzone operations.<sup>22</sup> But during the hectic period of initial beach discharge operations, the Amphibious Section, First Army, which supervised the efforts of the Provisional Engineer Special Brigade Group at Omaha Beach and the 1st Engineer Special Brigade at Utah Beach, required assistance in establishing a more orderly flow of supplies to and across the beaches.

As a result, the advance contingent of Transportation Section, ADSEC immediately prepared a study and submitted it to First Army headquarters, showing what supplies were available on the beaches, as well as in the ships offshore.<sup>23</sup> The study revealed that in some instances vital equipment had been left in offshore vessels, while less needed supplies were being unloaded. Remedies were found by having the Transportation Section, ADSEC, maintain a daily record of cargo discharge and expected cargo arrivals, and establishing a joint First Army-ADSEC unit called Water Transportation Control (WATCO). The unit was intended to provide close coordination in the transportation of supplies from the ports in England to the supply dumps of the First Army.<sup>24</sup> It was placed under

<sup>22</sup> History of the Transportation Section, ADSEC, Comzone, ETOUSA, from Activation to 30 Sept. 1944, p. 6.

<sup>23</sup> The contingent established offices at First Army headquarters at Omaha Beach.

<sup>24</sup> The unit was headed by Brig.Gen. D.G. Shingler, C.G., Amphibious Section, who previously had supervised port operations and later Motor Transport Service operations in the Persian Gulf Command.

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the control of the Amphibious Section, First Army, and was staffed principally by personnel from the Transportation Section, ADSEC. WATCO carried on its important activities until it was abolished late in June.

On 18 June control of the Engineer Special Brigades at the beaches was assigned to ADSEC, and a little over a week later Beach Commands were established under ADSEC to replace the Provisional Engineer Special Brigade Group and the 1st Engineer Special Brigade. Within a short time, the remainder of ADSEC personnel had arrived on the Continent, the small ports of Isigny and Grandcamp had been opened and preparations were underway for opening the port of Cherbourg. On 10 July First Army established its initial rear boundary, placing considerable territory under ADSEC responsibility. During that month, the staff of Transportation Section, ADSEC, also was enlarged by T.C. personnel from the Forward Echelon, Comzone, and in fact was commanded for a time by Colonel D.W. Traub, former Transportation Officer of Forward Echelon.<sup>25</sup>

This occurred while a portion of the Marine Operations Division, OCOT, and Movements Division, OCOT, were functioning as a part of the Transportation Section, ADSEC. Initially, the activities of the personnel of these two units were among the most important performed by ADSEC, but following the First Army breakthrough below St. Lo on 26 July, the Motor Transport Brigade became the most important transportation unit in ADSEC. Reserving a description of the activities of the Motor Transport Brigade until later, it may be noted that during August the Marine Operations Division, ADSEC, was absorbed partly in the Normandy Base

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It will be recalled that Forward Echelon, Comzone, never operated on the Continent because the First Army advanced so rapidly that Comzone Headquarters took control of the rear area when First Army released it.

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Section (which was established 13 August) and partly in the OCOT, Com-zone.

The Movements Division, Transportation Section, ADSEC, however, continued to play an important part throughout the period of the campaign. From June 1944 onward, the Highway Control Branch of the Movements Division had been particularly active in routing road traffic and coordinating moves at the beaches and along the highways to First Army dumps. Following 26 July the Movements Division was required to handle an increasing amount of rail movements, as well as highway traffic. Eventually, it was redesignated Operations Division and functioned through Rail, Highway and Movements Branches.<sup>26</sup>

The buildup of units under the control of T.C., ADSEC, proceeded rapidly during July, so that by the end of that month they numbered 230, consisting of 3 mobile port headquarters; 16 port battalions; 68 port companies; 2 amphibious battalions; 19 amphibious truck companies; 6 railway units; 9 Q.M. truck groups; 90 Q.M. truck companies; 7 Engineer units; and 10 miscellaneous units.<sup>27</sup> Before turning to a description of supply and transportation operations at the beaches and by T.C. organizations, however, it is necessary to describe one other organization

<sup>26</sup> Initial Rail Transportation Office activities of the Movements Division commenced early in July, when an officer was assigned as RTO at Isigny. By 28 July there were six RTO units in operation along the rail network. On the same date there were six Traffic Control Points manned by T.C. personnel.

<sup>27</sup> History of the T.C. in the ETO, Vol. IV, Section on ADSEC, pp. 4-5. The number of truck units noted above agrees with that found in the History of the Transportation Section, ADSEC, but another section of the History of the T.C. in the ETO, states that 148 truck companies had arrived on the Continent, in addition to 26 Q.M. truck battalions. Unfortunately, records available in the Historical Unit, OCT, ASF, do not explain this discrepancy, although the matter is of considerable import in view of the great demand for trucks which developed during the latter part of August. Ibid, Section III on Motor Transport Brigade, p. 5.

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that served as an important link between the Comzone and the Armies. This linking organization was the Regulating Station, not to be confused with Traffic Regulating Stations.

Regulating Stations are described as traffic control agencies whose purpose is to assure flexibility in the supply system by maintaining regular, smooth movements of supplies and replacements to the combat zone, and evacuation of casualties, prisoners and salvage from the combat zone. Generally speaking; one Regulating Station was established for each Army. The commander of a Station was called a Regulating Officer, and theoretically he served as the direct representative of the theater commander, but developments in the European campaign placed the three Regulating Officers serving each of the three Armies ultimately established under the 12th Army Group, under the Commanding General, ADSEC.<sup>28</sup> In fact, ADSEC itself served as a regulating agency, coordinating the activities of the three Regulating Stations.

The first of the Regulating Stations to serve on the Continent was the 25th, which was activated at Camp Plauche, New Orleans, on 25 February 1944.<sup>29</sup> Its authorized strength was 42 officers, 1 warrant officer and 144 enlisted men. It was then commanded by Lt. Colonel E.W. Mooring, T.C., and its personnel received its basic training at Camp Plauche. The War Department decided that the technical training of the 25th Regulating Station would not be undertaken in the Zone of Interior, and during June it was embarked for England, landing at Liverpool on

5 July 1944. A few weeks later the Station was moved to France, and

<sup>28</sup> Historical Report, 25th Regulating Station, 5 Feb. 1944 to 12 May 1945, p. 24.

<sup>29</sup> Ibid, p. 5.

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placed under the command of Colonel E.F. Cardwell by ADSEC headquarters on 1 August.<sup>30</sup>

According to the 25th Regulating Station historical report, in the beginning of operations on the Continent, "no one had a clear conception of just what was expected of a regulating station, as units of this type had not been used in any of the campaigns waged by the various forces."<sup>31</sup> By the middle of August, however, the 25th Regulating Station began to assist ADSEC in regulating the flow of supplies to the First Army, and the Regulating Officer participated in the plans and arrangements for the Red Ball Express route. Thereafter the Station served, to coin a phrase, as the advance section of ADSEC, or as the controlling agent for movements of supplies and personnel between ADSEC territory and First Army territory. In short, it was a supply agent and a traffic regulating agent between Comzone and combat zone boundaries.<sup>32</sup> It is now appropriate to turn to an account of supply and transportation operations for the first four months of U.S. Army activities on the Continent.

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<sup>30</sup> Col. Cardwell was later succeeded by Lt.Col. C.H. Blumenfeld.

<sup>31</sup> Ibid, p. 7.

<sup>32</sup> An account of the activities of the other Regulating Stations established on the Continent has not come to the attention of the author of this monograph.

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#### VIII. BEACH AND PORT DISCHARGE OPERATIONS - CHERBOURG

Due largely to the wreckage that had occurred on D-Day, particularly at Omaha Beach, and the continuance of high seas and enemy activities, the normal unloading of supplies did not begin at Omaha and Utah beaches until D plus three. General Eisenhower notes that by D plus five the machinery of supply at the beaches was functioning satisfactorily, but that at that time discharge was 50 percent in arrears of what planned. On the other hand, consumption had been less than anticipated in certain categories of goods. There had been a heavy demand for ammunition, so this class of supplies temporarily received top priority. During the initial period, before it had been possible to store all discharged cargo in dumps, some supplies were lost when the incoming tide reached cargo hastily piled on the beaches. The reserve of gasoline and rations which had been provided with the units landing contributed toward tiding over the critical stages in these classes of supply.<sup>1</sup>

As previously noted, conditions were more favorable at Utah than at Omaha Beach. Engineer companies with road building material and equipment landed only approximately two hours after the assault elements of the V Corps on Utah Beach. During the ensuing hours Q.M. service companies and DUKW companies also were landed. Initially each battalion beach group planned and developed its own sector of the beach. However, by noon the First Engineer Special Brigade Headquarters had landed, and on the following morning it assumed active control of beach operations.<sup>2</sup> Fortunately, all units of the Brigade were trained in mine de-

First U.S. Army, Report of Operations, op.cit., Book 1, pp. 55-56.

Report on Operation Neptune, Utah Beach, prepared by the First Engineer Special Brigade and covering the period 6 June-20 October 1944, p. 4.

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tection, a training that had not been provided to units of the 11th Port which operated at Omaha Beach

The first phase of supply delivery at Utah was accomplished by T.C. port companies, discharging cargo from ships to Dukws, Naval landing craft and barges, which transported supplies to the beach or a beach transfer point. The Dukws, which the First Engineer Special Brigade report referred to as worth their weight in gold, initially delivered supplies directly from ships to shore dumps. When sufficient truck companies became available, however, transfer points were established where supplies were transferred from Dukws to trucks. There were considerable delays in unloading landing craft because the Navy originally refused to permit them to "dry out" on the beaches. This meant that at periods of low tide, when the landing craft were temporarily withdrawn, their discharge ceased. Later, the Navy reversed its position and then discharge could continue until the craft were emptied. At low water, particularly, trucks were able to receive cargo directly from landing craft.

The Naval Beach Battalions attached to the Engineer port regiments, performed their tasks well. When they were succeeded by the party headed by the Naval Officer-in-Charge, however, temporarily a good deal of confusion and misinformation resulted. It seems to have been almost universally true at the beaches as well as at Cherbourg, that initially communication from ship to shore was unsatisfactory, and operations at Utah Beach were no exception. While LCTs and Rhino ferries were both used with outstanding success in landing both vehicles and supplies, it was not until some weeks after beach operations had begun that direct radio communication was established from Naval headquarters ashore to

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each LCT, and the movement of these craft was satisfactorily controlled.

One of the protected landing areas, called a Gooseberry, established at each of the five Allied assault beaches, and formed by sinking a line of old Liberty ships offshore, was erected at Utah Beach, but it was reported as having no effect in preventing beach swells. In fact, the First Engineer Special Brigade reported that the Gooseberry was essentially useless and did not justify the time, effort and materials put on its construction.<sup>3</sup> Furthermore, it prevented full use of approximately 600 yards of beach.

Discharge records at Utah show that during the first month of operation, that is from 6 June to 6 July, approximately 150,000 tons of cargo were placed ashore.<sup>4</sup> In addition, nearly 220,000 personnel were landed, and approximately 34,000 vehicles crossed the beaches during the same period. This favorable start, carried on in the face of a number of difficulties, was only a preliminary to the peak monthly record established during July, for during those 31 days 193,154 tons of cargo were discharged over Utah Beach. During August the monthly tonnage fell slightly to 187,955, and by the time the beach was closed out in November 1944, it was credited with a total discharge of 726,014 long tons of cargo.<sup>5</sup> This was truly a remarkable record, made necessary as the result of the failure to capture the Brittany ports as planned. Of course, it did not equal the record established at Omaha Beach, where original plans had called for larger discharges, and greater facilities

<sup>3</sup> Ibid, p. 11.

<sup>4</sup> Ibid, Annex 7, Chart 1.

<sup>5</sup> T.C. Monthly Progress Report, prepared by the Statistics Branch, T.C., USFET, 31 July 1945, Table 8B.

were provided

icans initial discharge operations at Omaha Beach were dependent almost wholly

clear the energy from the beach maintenance area.<sup>6</sup>

Nevertheless, on D plus 2 and the following days, marking of beaches and clearance of the tangle of wrecks of ships and battered vehicles occupied the attention of the Brigade troops.

beach discharge almost immediately by wide the lanes that Naval demolition units had blown through beach obstacles. ARMY and NAVY

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through the wreckage to permit incoming

Among the elements encountered by the brigades, however, was the unloading of ships and craft. On the decision of the First U.S. Army, the Brigade [redacted] [redacted] [redacted] [redacted] cargo according to a priority schedule. This met with strenuous opposition from Navy personnel, who believed that ships should be cleared of all their cargo as rapidly as possible in order to permit them to leave the beach area promptly.

ARMY, Naval units were said to have been successful in securing removal of the requirements for priority unloading, and

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<sup>6</sup> Operation Report Neptune, op.cit., p. 106.



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thereafter the practice was abandoned.<sup>7</sup> The effort to achieve priority discharge had encountered the problem of an inadequate communication system, making it difficult for the Brigade Group to receive information on the arrival of ships and craft, and the cargo they carried. Ultimately, a speedier means of relaying information about ships and craft was devised by the Brigade Group, and this simplified the problem of allocating ships to the Brigades for unloading.

Emergency dumps were opened at Omaha Beach on D plus one, and were used until the beach maintenance areas dumps were prepared six days later. Delays in preparation of the theater dumps was due to the necessity for clearing mines and eliminating sniper fire. Another significant development during the early period at Omaha Beach was the establishment of a landing strip for aircraft by D plus two. Transport planes used this strip during daylight hours and trips from English bases to the Continent were made almost without opposition, thanks to American mastery of the air. This landing strip made it possible to begin air evacuation of the wounded on D plus four instead of on D plus 14 as scheduled. During the period from D-Day to D plus 21 it was estimated that 6,677 casualties were evacuated to England, 2,124 from Omaha and 3,853 from Utah.<sup>8</sup> These figures include casualties evacuated by aircraft, as well as those evacuated to LSTs.<sup>9</sup>

Other early operations at Omaha Beach included the establishment of

<sup>7</sup> Amphibious Operations, Invasion of Northern France, Western Task Force, Chap. V, p. 13.

<sup>8</sup> The 82nd and 101st Airborne Divisions also were entirely evacuated to the United Kingdom during June. History of the Transportation Section, Advance Section, Communications Zone, ETOUSA, From Activation to 30 Sept. 1944, p. 16.

<sup>9</sup> First U.S. Army, Report of Operations, op.cit., p. 56.

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Gooseberry anchorage and Kulbe harbor, and the two small ports of Grandcamp and Isigny. Since this harbor and ports were operated by the 11th Port, an account of activities will be postponed until the following section. Meanwhile, it is noted that on 18 June the Brigade Group troops became attached to the Advance Section Center, then operating under First Army control. On June D plus 2 the Brigade Group mission was declared accomplished and the Group headquarters was deactivated. In its place Headquarters, Omaha Beach Command, was established, using most of the same units that had operated under the Group.

As at Utah Beach discharge of personnel, cargo and vehicles continued until November when the port of Antwerp was opened. Records show that on D plus two, 1,429 long tons of cargo were discharged at Omaha Beach. A week later this had been increased to 9,008 long tons per day. During the entire month of June, that is from D-Day onward, there were 182,199 long tons of cargo discharged at Omaha. In the following month this figure was nearly doubled, to establish the peak monthly discharge record at Omaha (356,219 long tons of cargo). The discharge for the following month was nearly as large as that for July, but thereafter it fell off sharply. By November, when the beaches were closed out, the accumulative total for discharge at Omaha amounted to 1,264,999 long tons of cargo.<sup>10</sup>

#### Eleventh Port Operations at the Beachhead

The 11th Port, which formed one of the three component units op-

<sup>10</sup> T.C. Monthly Progress Report, USFET, 31 July 1945, Table 8B.

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erating under the Engineer Special Brigade Group (Provisional), landed its advanced detachment at Omaha on D plus 2 (according to some reports this did not occur until D plus 3). The remainder of the Headquarters was moved to the beaches in five increments between 9 and 22 June, during which time various attached units, principally truck companies and port battalions, also arrived. On D plus 3 elements of the 11th Port assisted the 6th Engineer Special Brigade in clearing away wreckage of landing craft and vehicles and on 11 June it was assigned to operate a portion of the beach and began unloading its first vessel.<sup>11</sup>

During ensuing unloading operations 11th Port officers were pressed into service from all divisions of the Port to take charge of unloading ships. They carried on this work for some weeks while a new SOP was established to meet the special needs of their new assignment. Among the handicaps which 11th Port officers faced was the failure of the first port companies, scheduled for arrival on D plus 10, to arrive until D plus 17. Consequently, it was necessary to employ personnel from Q.M. service battalions which had had no previous experience in discharging ships' cargo. Furthermore, the gear on many of the British coasters was in bad condition, and much damage to cargo resulted from faulty winch brakes. Some vessels did not have adequate gear for handling heavy lifts. According to the theater T.C. historian, the Liberty ships which arrived from the U.S. had no equipment whatever for the removal of deckloaded vehicles, and there was a general shortage of line for bringing craft alongside the ships.<sup>12</sup>

<sup>11</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chapter on 11th Port.

<sup>12</sup> Ibid, p. 1.

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The difficulty of proper communication facilities also handicapped the 11th Port, and on several occasions, lacking adequate information, officers ordered Dukws and landing craft to go out and find any ship at all which was standing by close enough to be worked. The operation of ferry (landing) craft was made more difficult by lack of cooperation between Army and Navy crews which controlled them. Not until the second week of July was this situation definitely improved through the assignment of more craft and their allocation to definite operations well ahead of the time when they would be required.

The first of the three Dukw companies which had been attached to the 11th Port, as distinct from those which were assigned to other units under the Brigade Group, arrived on D plus 10. These companies were among those which had had very little previous training in the operation of their assigned vehicles. In some cases the drivers were barely able to keep their craft afloat. Dukw company units experienced great difficulty in locating ships at night, even when they had made previous trips to them in daylight hours. Several Dukws were sunk by striking submerged objects or through the explosion of mines.

Failure to receive cargo handling gear according to plan proved particularly embarrassing to efficient 11th Port discharge operations. Large quantities of this material did not arrive at the time or place scheduled. In fact only about 10 percent came in over Omaha Beach. Such items as tractors, mobile cranes, 280 warehouse trailers, pallets, ropes, slings and shackles were erroneously dispatched to the First Army Q.M. or Engineer dumps, either in the Omaha or Utah Beach areas. To add to these handicaps, there was a failure of the TAT (to accompany

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troops) equipment to accompany the units attached to the 11th Port. It should be added, however, that most of this equipment was finally recovered to the benefit of efficient beach operations.

During initial operations, it became necessary to divide beach exit areas between the 6th Engineer Special Brigade trucks and 11th Port trucks, in order to prevent delays in the movement of traffic. Furthermore, when the 11th Port took over from the 6th Engineer Special Brigade a transfer point where Dukw cargo was shifted to trucks, a traffic circuit had to be established to avoid a growing bottleneck. Truck drivers were handicapped by the difficulty of driving along narrow roads under blackout conditions, and initially they also lacked signs directing motor traffic to dump areas. Dumps faced a shortage of personnel and a lack of sufficient dump equipment, such as cranes and roller conveyors, thus delaying the rapid turnaround of trucks. Many of these conditions were improved as rapidly as possible. For example, six cranes were obtained for use at the transfer point, and efforts were put forth to obtain forklift trucks to handle skid loads. Additional accommodations were provided for Dukws and trucks, and a central control tower was erected from which operations could be directed by an amplification system.

While these operations were in progress, work on establishing the Gooseberries and the Mulberry was progressing, though somewhat behind schedule. By D plus 2 ships had been sunk to form a permanent breakwater and the Phoenixes had been filled and sunk, and 12 floating bombardons breakwaters had been sited. The center span of the steel bridge reaching from the shore to the Loebnitz pierhead was then put in place and by 17 June it was possible to begin unloading the LSTs at the pier-

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head. It should be observed, however, that towing the cumbersome caissons and sections of piers and pierheads had been considerably hampered by the continued bad weather, and nearly one-third of the floating pier units was lost through this cause while intransit from England.<sup>13</sup>

The installation of the Mulberry furnished two square miles of protected water. Use of the pierheads which was designed to discharge several LSTs and two coasters simultaneously permitted the prompt turnaround of LSTs, because they were no longer required to "dry out" on the beach. By D plus 13 (19 June) the Mulberry projects at Omaha and at the British beach were about 90 percent completed, supplementing the Gooseberries which had been completed by D plus 10. In fact, by that date all beachhead operations were in a well advanced state of organization, so that it was particularly unfortunate that a severe storm broke late on 19 June. This storm lasted for three days and was so severe that all unloading at the beaches was halted.<sup>14</sup> Before the storm ended there was a huge jam of vessels, chiefly LSTs and LBVs, that had helped to smash the Mulberry at Omaha Beach. This Mulberry was so badly damaged that it was abandoned, although the British Mulberry was completely repaired by 20 July, and at the end of that month nearly 4,000 men, and more than 400 vehicles and 11,000 tons of cargo were discharged within its shelter during a single 24-hour period. Lacking the facilities of the Mulberry the Brigade Group supported the 11th Port in setting up a damaged barge as a pier. Four LSTs were able to discharge simultaneously on this pier either during high or low water. Furthermore, the two small

<sup>13</sup> Report of the Supreme Allied Commander, op.cit., p. 54. In all 400 units, totalling 1,500,000 tons, were towed across the Channel.

<sup>14</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chap. 1, pp. 5-6.

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ports of Isigny and Grandcamp were brought into operation to supplement beach discharge. However, it was necessary to clear away tremendous amounts of wreckage on the beaches that were the result of the storm.

The port of Grandcamp was opened on 17 June, but discharge did not begin there until five days later.<sup>15</sup> A detachment of the 11th Port, consisting of four officers and 37 enlisted men and a Q.M. service company, began unloading the first vessel at Grandcamp. During the first four days this port discharged one coaster and 12 LBVs. By 15 July, 236 LBVs and two LCTs had been discharged of a total of 8,668 tons of cargo.

Meanwhile, the port of Isigny had been brought into operation. The port was captured by the U.S. forces on 9 June, and five days later a detachment of the 11th Port was activated to take charge of its port operations.<sup>16</sup> An Engineer port construction unit rehabilitated the harbor facilities in sufficient time to enable the first coaster to berth on 24 June. Isigny was capable of accommodating nine coasters and it was believed that a considerable number could be brought to alongside berths if the canal were dredged. If this work had been carried out, it was estimated that the port could discharge 2,500 tons of cargo per day, but personnel was not available, and moreover, many coasters that might have been assigned to discharge at the port, were discharged on Omaha Beachhead. Consequently, during the time when the 11th Port detachment was stationed at Isigny the total tonnage handled was only 9,097 tons. The record for one day was attained on 11 July when 1,142

<sup>15</sup> Ibid, p. 10.

<sup>16</sup> Ibid.

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tons of cargo were discharged.

On 21 July 11th Port operations ceased at Omaha Beach, and the unit moved to commence work at the ports of St. Vaast, Carentan and Barfleur, supplemental to Isigny and Grandcamp. A little later the port of Granville on the western side of the Normandy peninsula was added to those already named, located on the eastern side, and during the month of July a total of 40,290 long tons of cargo was discharged at all the minor Normandy ports. During the following month this figure was nearly trebled, for over 125,353 tons of cargo were discharged. The monthly rate fell somewhat during September and then showed a general decline until the ports ceased operation during April 1945. By that time a total of 600,884 tons of cargo had been discharged at all the Normandy minor ports. The relative importance of these ports in the Fall of 1944 is reflected in the discharge statistics for September 1944:<sup>17</sup>

St. Vaast	- 38,717	long tons	
Barfleur	- 29,861	" "	
Isigny	- 22,335	" "	
Grandcamp	- 7,350	" "	
Granville	- 1,821	" "	
Total	100,084	" "	

#### Developing the Port of Cherbourg

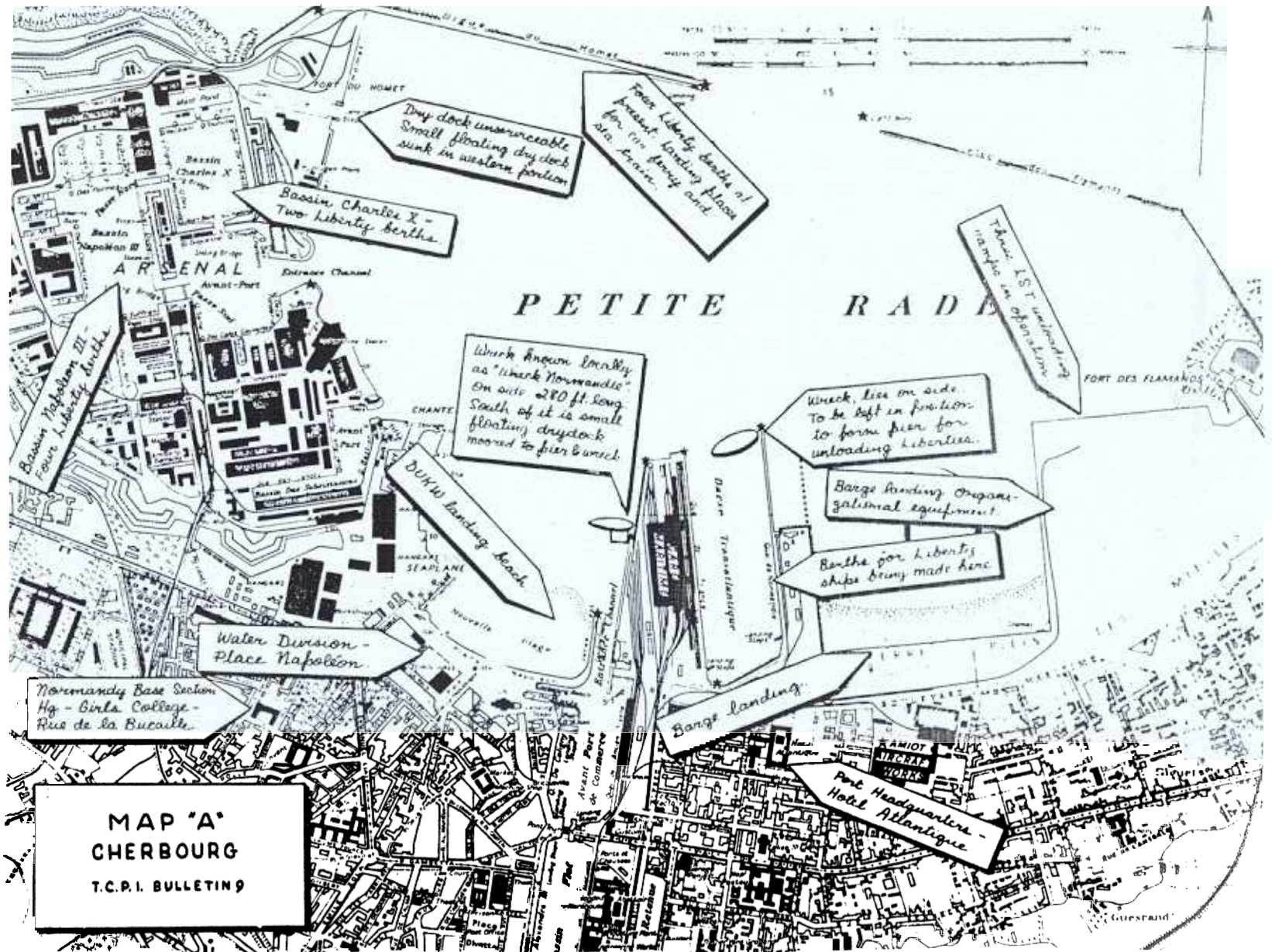
The port of Cherbourg played a far larger part in supplying the Allied armies of Western Europe (a certain amount of British cargo was discharged at Cherbourg along with U.S. cargo) than originally had been contemplated. Its capture was expected on D plus eight (14 June), and three days later it was hoped that cargo unloading would commence. The

<sup>17</sup> Ibid, p. 13. During September the port of Carentan was no longer in use. The extent of its discharge contribution may be measured by the 2,114 tons of cargo discharged between 15 July and 1 August 1944.

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MAP 'A'  
CHERBOURG

T.C.P.I. BULLETIN 9

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discharge capacity was to be increased to 5,000 tons per day by D plus 20, and by the middle of September, the port was expected to be capable of discharging 8,500 tons per day. None of these plans was carried out, because as previously mentioned, German surrender of the port occurred on 27 June, and unloading Allied cargo vessels did not commence until 16 July. Furthermore, because of the Allied failure to capture and develop the Brittany ports as scheduled, a program was projected during July for increasing the Cherbourg discharge capacity to approximately 20,000 tons of cargo per day. Unfortunately, the program could not be completely realized, but by the end of May 1945 Cherbourg had unloaded a total of 2,728,085 long tons of military cargo. In other words, for a time Cherbourg served as a keystone of U.S. Army supply in Western Europe, and throughout the entire period of the European campaign it remained one of the principal Allied ports.

Cherbourg is located on the northern coast of the Cotentin Peninsula and faces northward toward England.<sup>18</sup> Before the war it was an important port of debarkation, "the gateway to the Continent", and the principal passenger port of France. A direct train service connected the huge modern quayside, where the liner NORMANDIE used to dock, with Paris. However, there were relatively few cargo handling facilities and the average daily tonnage before the war was 780 tons. Cherbourg harbor is entirely artificial and consists chiefly of a protected tidal area which lies in the shape of a large "U". There are two roadsteads for the anchorage of ships. The outer roadstead, known as Grande Rade,

<sup>18</sup> History of the Fourth Major Port, Cherbourg, France, June 1944 - Oct. 1945, p. 2. (Copy included in Historical Report of the T.C. in the ETO, Vol. VIII, Part 4).

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was enclosed by two jetties, leaving two entrances. The inner roadstead, Petite Rade, serves the main harbor installations and is protected by two jetties which provide one entrance to the Grande Rade. Extending out into the Petite Rade is the large Quai de France, containing the unique Gare Maritime, where before the war, passengers were able to alight from trans-Atlantic liners and board waiting streamlined passenger cars under a single roof. A second large dock, the Quai de Normandie, had not been finished at the outbreak of World War II, although the British ship QUEEN MARY had once docked on the western side of that pier. There also were various other sections of the port which afforded abundant berthing space for vessels, including the areas known as the Arsenal and the commerce port. Location of the various areas may be seen by reference to the accompanying map.

During the planning period for the European campaign, the 4th Port had been assigned to operate the port of Cherbourg upon its capture, and an advanced detail of that unit entered the outskirts of the city eight days before its defenders capitulated. Colonel C.C. Sibley, Commander of the 4th Port, and other members of his staff arrived during the intervening period, and by 6 July the entire port headquarters and headquarters company was present. Within the following two weeks the principal units, that is port battalions, truck companies, amphibious truck companies and harbor craft companies also had arrived.<sup>19</sup> In conjunction with representatives of the Allied Navies, the U.S. Army Engineers and ADSEC representatives, members of the 4th Port Headquarters, immediately had undertaken a study of the problem of rehabilitating the

<sup>19</sup>

Progress Report of the 4th Major Port at Cherbourg, period 27 June 1944 to 15 March 1945, p. 5.

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port and the harbor area, in order to commence discharge operations at the earliest possible moment. The Germans had boasted over their radio that they had left the port unuseable for a long period and Hitler had decorated the German admiral who in destroying the port, was said to have performed a feat which was "unprecedented in the annals of coastal defense."<sup>20</sup>

The Germans had made no idle boast. The harbor was strategically littered with visible wrecks to block all approaches, and many wrecks were later found below the surface. Captured Germans and native French revealed the wholesale mining of the harbor and the port. Breakwaters were found demolished and quay walls tumbled into ships' channel. The Engineer officer who prepared the initial plan of port rehabilitation, Colonel A.E. Viney, commented that "the demolition of the port of Cherbourg was a masterful job, beyond a doubt the most complete, intensive and best planned demolition in history."

Indication of the character of the destruction ashore is found in the description of conditions at the Quai de Normandie and the Quai de France. Locomotives, gantry cranes and passenger gangways had been wrecked and toppled into the water and quay walls blown in on top of them. An underwater survey showed that 2,500 cubic feet of masonry and a tangled mass of steel had been blown into the area between the two quays. In addition, most of the concrete dock had been dropped behind what remained of the destroyed caissons of both quays. The Gare Maritime, built of reinforced concrete, was badly damaged. All utilities in the building, such as the electric control system and the heating

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<sup>20</sup> History of the 4th Major Port, p. 8.

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plant, were demolished.

There were, however, certain exceptions to this extensive destruction. Due to the hasty enemy withdrawal, not all the demolitions planned had been accomplished. Explosives placed in the city filtration plant remained intact. Outside the pier area, damage to railways was relatively light, no serious destruction having occurred to lines leading from the city except the blowing up of a tunnel south of the port. Fortunately, the city itself was practically undamaged, and the streets running through it could be quickly cleared. In addition, the 4th Port was able to recover some stevedore gear left undamaged, and they found the heavy type slings and a large crane which could be readily repaired particularly useful.

Mine sweeping of the harbor began as early as possible under the direction of a British Naval commander, who at first was required to fight off German fire from the harbor forts. He was required to take particular care with the type of mines which were found because they were new to Allied experience. These mines were of the acoustic, magnetic and snag variety. A special staff of naval mine experts performed the hazardous task of clearing all water areas that could not be reached by standard mine sweeping operations. The naval clearance program included the work of the experienced Commodore William A. Sullivan, the chief naval salvage officer, whose job was to remove all sunken wrecks and obstacles blocking the channels. Necessarily much of his work was held up awaiting mine clearance. Parenthetically, it may be noted that both in mine clearance and in the reconstruction of dock areas, French naval authorities provided valuable assistance to the British and American units.

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Port reconstruction was carried out by two Engineer port reconstruction and repair regiments. Their first task was to clear away debris because roads along the water front were impassable due to the mass of wreckage. Much of this debris was used in the construction of LCT and Dukw ramps. Some captured materials were used in port reconstruction before supplies could arrive from the U.K. These captured supplies included cement, sand, reinforcing steel and lumber. Employment of civilians and POWs speeded the task considerably. The first construction work was to prepare landing hards for Dukws at the beach at Nouvelle Plage and then, in turn, an area for receiving barges, an area for the discharge of railway rolling stock, and berthing space for five Liberty ships at the eastern inner breakwater.<sup>21</sup> This work of reconstruction and rehabilitation continued until the following spring, when because of the greater importance of other ports, construction work at Cherbourg was halted.

While the harbor clearance and port reconstruction work was in progress, sections of the 4th Port staff had been busy seeking their equipment, some of which had preceded their arrival. The main detachment of the Headquarters had been working on service shops, erecting or repairing mechanized operational equipment and constructing a sorting shed. They therefore were ready to receive the first cargo ships (four MT ships), which arrived at Cherbourg on 16 July. Thirty small wooden barges and some harbor craft arrived at the same time and cargo discharging began immediately. Since no quays were then available, unloading

<sup>21</sup> This four point priority program was established at a meeting held on 28 June by representatives of the Navy, the Corps of Engineers and the Transportation Corps. History of the 4th Port, p. 13.

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was confined to barges which were taken to one of the basins in the port, or to DUKWS, which discharged at the newly constructed hards near the Quai de France. The amount of available port equipment was increased by obtaining cranes from the Omaha and Utah Beaches and full use was made of civilian labor. Until the railroad could be rehabilitated, supplies were cleared from the port almost entirely by trucks.

Among the handicaps which the 4th Port initially faced was the failure of all of its port gear to arrive as scheduled. Much of this gear had been loaded in England on 12 ships which were to be dispatched to Cherbourg. Instead, the ships were sent to Utah Beach, where much of the heavier gear was unloaded. A two-day search by 4th Port representatives revealed the location of this discharged equipment, and it was eventually brought into Cherbourg. Fortunately, the fork lift trucks which had been included in this gear, were promptly brought into the port, where the smooth docks and streets made their use possible. There was sufficient military personnel to drive these trucks, but not to operate the available cranes. Hence the Ordnance staff conducted a school in crane operation. It was particularly necessary to supervise French civilian workers in their use of mechanized port gear because of their unfamiliarity with it. Even the proper use of slings by native civilians had to be supervised by port personnel, and all contact with the civilians encountered the language difficulty.

During early operations a regulating group was brought in, and it promptly began directing truck drivers in accordance with a traffic regulating system set up for port clearance. M.P.s were stationed at all important intersections to facilitate the movement of trucks. How-

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ever, there was some difficulty in checking the incoming cargo because harbor craft companies towed barges ashore without notifying proper authorities. Despite all the early handicaps and the confusion, during the first few weeks of operation, a total of 31,619 tons of cargo was unloaded from incoming vessels. A large part of this consisted of cargo brought in on barges past partially sunken ships which still obstructed portions of the channel in the inner basin. There never seemed to be enough barges to handle the amount of cargo waiting in ships offshore, but some relief was found by obtaining an additional number from the beaches. One of the principal reasons why the number of barges, as well as the number of available Dukws, never seemed to be adequate was that for a time, despite the delay in opening the port, ships continued to come into Cherbourg from the U.K. according to their initial schedules.<sup>22</sup>

During the month of July other notable developments at Cherbourg included a change in the pattern of command and the adoption of the aforementioned plan for increasing the amount of tonnage to be discharged daily. On 21 July ADSEC, Comzone, enlarged the former boundaries of the port and established the Headquarters, Cherbourg Command Provisional (or Base Section #3). Colonel Theodore Wyman Jr., was appointed commander of this headquarters, which on 13 August was redesignated the Normandy Base Section. While the establishment of the Command reputedly enabled Colonel Sibley to devote his entire time to the operation of the port, actually there was an initial failure to establish satisfactory relations between the Command and the Port. As an Engi-

<sup>22</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chap. on Cherbourg, p. 7.



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neer officer Colonel Wyman was particularly concerned with the progress of port rehabilitation, but he also took a personal interest in the discharge of cargo, a work which belonged to the port commander.<sup>23</sup> On the other hand, during July 4th Port Headquarters was strengthened by a detachment of the 12th Port under Colonel A.H. Schroeder. Some of the 12th Port staff formed a Port Troop Command headquarters (provisional), but some were assigned to the Cherbourg Command headquarters. Additional organization change occurred on 28 July when a Harbor Boat Service was established. By that time the number of available harbor craft approached 200.

#### Enlarging the Port Discharge Program

The plan to enlarge the capacities of the port to achieve a daily discharge of 20,000 tons of cargo by 14 September, was placed before the port commander on 11 July. He was then given the task of working out the details which would assure the accomplishment of his mission. Additional equipment was necessary, and the reconstruction and utilization of existing facilities to a greater extent than had been contemplated also was required. The rail situation in particular required considerable overhauling, because the highway network could not carry all of the increased load contemplated. In planning to expand rail traffic, it was necessary to increase the size of the marshalling yard and the storage facilities along the main line from Cherbourg and Carentan. Existing car storage capacity was available for only 350 cars, with marshalling yard capacity of 400 cars. New plans required storage

<sup>23</sup> Historical Report on the Reconstruction and Rehabilitation of Cherbourg, prepared by the Historical Unit, ETOUSA, and interview with its author, Lt. M. Yarmon.

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for 4,000 cars with a marshalling yard capacity for 2,000 cars. Fortunately, it was not necessary completely to carry out plans for the enlargement of existing storage and marshalling yards to meet the new requirements, or to build completely new yards, because T.C. officers found two German marshalling yards five miles south of Cherbourg. These had been built to facilitate construction of two rocket bomb bases, and both were capable of serving Cherbourg as permanent marshalling facilities. One of them also could be used as a locomotive terminal.<sup>24</sup>

While the railway facilities were being prepared to handle a larger flow of traffic, a new road traffic plan was prepared in an effort to avoid bottlenecks. There were four main arteries leading out of the Cherbourg area, two laterally to the east and the west and two to the south. By using all of these routes and carefully directing traffic within the city (one of the avenues was widened to accommodate four lanes of traffic), it was possible to care for the temporary increase in truck movements. In a further effort to achieve the desired tonnage target, on 1 August unloading at Cherbourg was placed on a 24-hour a day basis. The first nightwork was facilitated by the presence of a full moon, and later electric lights were strung in appropriate areas.

Various other improved methods of operation also were adopted. Port battalion troops were ferried to ships anchored in the harbor, the same battalion being assigned to the same ship every day until the work was finished. The strength of units working on each ship was cut from regulation 21 personnel to 16, a measure which was said to have increased the efficiency of operations by 25 percent, because the men no

<sup>24</sup> Radio conversation between Maj.Gen. C.P. Gross from Maj.Gen. F.S. Ross, 8 July 1944.

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longer got in each other's way. In addition, instead of having Dukws carry only one sling load of supply, they were made to carry two sling loads, often with several classes of cargo. An officer or enlisted man was placed by the port on each discharging ship, and by using a copy of the cargo plan and hatch stowage he was able to expedite the removal of cargo.

During the initial period of operation the work of U.S. Army port units was supplemented by the employment of between 700 and 750 POWs, working on 12-hour shifts. There also were 900 French civilians employed in various tasks at the port. Despite certain handicaps, such as a shortage of craft for ferrying the port battalions to vessels and the loss of time because of lack of communication between Dukws, ships and shore, by 20 August a record day of about 10,000 tons discharge was achieved.<sup>25</sup> This figure was surpassed in succeeding days, although as previously mentioned, the projected target of 20,000 tons a day was never quite attained.

Meanwhile, the port had begun unloading heavy pieces of cargo, such as Diesel locomotives. On 27 July the first seatrains commenced to discharge onto barges, both locomotives and railway rolling stock.<sup>26</sup> Early in August the first ship to shore removal of rolling stock from seatrains began at one of the breakwaters. The operation was carried out by placing a crane ship next to the breakwater where the crane ship unloaded from the seatrains to the breakwater. This expedient met with one misfortune when a boom on the crane ship snapped, dropping a large

<sup>25</sup> It was estimated that the port was 70 percent rehabilitated by 31 August 1944. However, discharge from ship to Dukw did not end until 15 December 1944.

<sup>26</sup> History of the 4th Port, p. 17.

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locomotive into the sea, but it was possible to recover this locomotive later. In addition to the use of seatrains, the first cross-Channel trainferry began the discharge of rolling stock at two newly constructed landing points on one of the Cherbourg quays (Quai du Homet). The third means of unloading rolling stock, from tracked LSTs to ramps, was accomplished at a newly constructed landing (the Port des Flammands Reclamation Project) in the port area where, on 5 August, LSTs began discharging all kinds of rolling stock on three railway ramps. This rolling equipment was taken immediately to a marshalling yard in the vicinity.<sup>27</sup>

The first record of passenger arrivals at the port shows that two officers and 38 U.S. seamen came in on 11 July.<sup>28</sup> These were expected to be followed by others, which ultimately would entail the daily debarkation of 15,000 troops. In anticipation of such a large movement, localities were found southeast of Cherbourg suitable for staging areas and routes were laid out from them to the debarkation installations. On 7 September the first troop convoy arrived directly from the U.S. The convoy consisted of four ships, which unloaded the troops onto transport or Rhino barges for discharge ashore. It required 12 hours to effect the debarkation of approximately 19,000 troops that had arrived in the convoy, although estimates had placed the necessary time as high as 30 hours. The outloading of troops commenced during the preceding month, when casualties began arriving in improvised hospital trains at Cherbourg.

<sup>27</sup> 1,522 units of railroad equipment were discharged during the first half of August and 3,547 units during the second half. During September the total was increased to 7,836 units.

<sup>28</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chap. on Cherbourg, p. 7.

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The number of personnel handled during September 1944 amounted to approximately 67,000 troops discharged and 14,000 personnel evacuated. Handling these troops was effected at the same time the cargo discharged, including the weight of vehicles and railway equipment, was brought up to 314,427 tons for the month.<sup>29</sup>

Discharge of cargo and personnel was supplemented by the discharge of the first shipment of bulk petroleum (POL) products on 24 July.<sup>30</sup> On that date a U.S. Navy tanker began pumping out POL at an unloading point which had been erected by the French near the eastern end of the outer breakwater (at Querqueville). Separate lines allowed the simultaneous discharge of Diesel fuel, and truck and aviation gasoline. From Querqueville what was termed the "Big Pipe" line system carried POL to the Armies at the front. In addition, large quantities of POL were forwarded by plane from the Querqueville airstrip. The increase in the monthly rate of bulk POL discharge at Cherbourg, and the beginning of a decline in the rate are shown in the following tabulation:<sup>31</sup>

Bulk POL Discharged at Cherbourg

July 1944	16,633	long tons
August	104,905	" "
September	149,944	" "
October	231,010	" "
November	164,756	" "
December	147,379	" "

Port Clearance at Cherbourg

Until August 1944 port clearance of cargo at Cherbourg was maintained primarily by motor vehicle, but thereafter clearance by rail in-

<sup>29</sup> Ibid, p. 30.

<sup>30</sup> History of the 4th Port, p. 17.

<sup>31</sup> Supplement to the Progress Report of the 4th Port, p. 10.

RESTRICTED

creased rapidly, both as to amount of freight carried and in proportion to motor vehicle clearance. During September the ratio between the two methods was about even, 166,118 tons of cargo being cleared by motor vehicle and 162,021 tons by rail. Subsequently, the balance grew strongly in favor of rail clearance. On the whole, that is with the exception of one or two months, the backlog of cargo in the port area was kept at a reasonably low figure.

When the discharge of military cargo commenced in July, the 4th Port consolidated trucking activities under Colonel J.L. McKinnon, Commanding Officer of the 470th Q.M. Truck Group. The Group's mission was to handle all port clearance for delivery within a radius of 20 miles of the port. Approximately 2,500 officers and enlisted men, with 600 motor vehicles and 150 Dukws were placed under the Group's direction. In order to have vehicles readily available, the Group operated five truck pools, one for each of the five sections into which the port area was divided, and two "surge" pools. The Group also supervised first and second echelon maintenance by each Q.M. truck company, and endeavored to insure the availability of third and fourth echelon maintenance by Ordnance units.

Most of the truck companies were provided with standard 6 x 6 2½-ton trucks, but one company was equipped with 13-ton Air Force tractor-trailers (some with 40-foot and some with 25-foot beds); two companies operated 6-ton tractor-trailer units; and five companies were equipped with cab-over-engine type trucks, which contained bodies long enough to carry bulky cargo. During July these units cleared 27,257 tons of the 31,627 tons of cargo discharged at the port.

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On 9 August the Group and some of its units were moved by the Motor Transport Brigade, ADSEC, to another assignment, leaving only eight truck companies in charge of the 151st Q.M. Battalion, Mobile, (TC). Some of these remaining companies were provided with 140 1-ton trailers that became available, and they were able to increase the rate of clearance from the Dukw transfer point by 30 percent. Truck drivers were then working on a 12-hour shift. During August the number of available truck companies increased greatly, and port clearance by motor transport increased to nearly 7,000 tons of cargo per day.

Among the handicaps to efficient truck operation until September was the lack of sufficient equipment at the dumps for the prompt unloading and handling of truck cargo.<sup>32</sup> This deficiency was ascribed either to failure to foresee the need for equipment, or the backphasing of deliveries from the U.K., when time schedules for shipments were rearranged, because of the course of the fighting on the Continent. Irrespective of difficulties, the port cleared 152,731 tons of cargo by motor vehicle during August, and September witnessed an even higher record.

U.S. operated trains moved out of the Cherbourg area as early as 11 July, but initial movements were for carrying passengers, not military freight. Before trains could operate in the port area, it was necessary to undertake a considerable amount of reconstruction and rehabilitation of port railway lines. Rubble had to be cleared away, track

<sup>32</sup> Some trucks dispatched from the port could not locate the depots to which they were sent, partly because no depot signs were posted, and partly because depots were moved without notice to port authorities. Muddy roads also presented handicaps.

RESTRICTED

RESTRICTED<sup>345</sup>

repaired or replaced and new spurs extended onto some of the quays. This type of work encountered certain difficulties which delayed opening the lines to traffic. The Corps of Engineers, with technical advice on priority and location of track from the 2nd MRS, and considerable assistance after the initial period by personnel from two railway shop battalions, promptly undertook the work, but their tools and equipment failed to arrive as scheduled.<sup>33</sup> Furthermore, the track material which did arrive lacked certain critical parts. Fortunately some railroad tools and track materials were found locally, but it was not until the latter part of July that port clearance by rail commenced. The first train at Naples had pulled out of the port ten days after the Allies had captured the city, but at Cherbourg there was nearly a month's delay. By the end of July only 1,212 tons of freight had cleared the port of Cherbourg by rail.

Conflicting reports show that either 83,700<sup>34</sup> or 94,700<sup>35</sup> tons of freight were cleared by rail during August, as the U.S. Armies began their advance across France. Whichever figure is correct, the smaller of the two was practically doubled during September, and the monthly rate continued to climb until December. Comparative statistics for Cherbourg port clearance by rail and motor vehicle, and the corresponding monthly figures for cargo discharged, are summarized in the following tabulation:<sup>36</sup>

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<sup>33</sup> Report of the General Board, USFET, Study #122, p. 53.

<sup>34</sup> History of the T.C. in the ETO, Vol. IV, Section II, Chap. on Cherbourg, p. 19.

<sup>35</sup> Progress Report of the 4th Port, p. 13.

<sup>36</sup> Ibid.

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CARGO DISCHARGE AND PORT CLEARANCE AT CHERBOURG

	<u>Cargo Discharged</u>	<u>Cleared by Rail</u>	<u>Cleared by Truck</u>
July 1944	31,627 1/t	1,212 1/t	27,257 1/t
August	266,444 "	94,692 "	152,731 "
September	314,431 "	162,021 "	166,118 "
October	365,592 "	191,307 "	161,814 "
November	433,301 "	242,004 "	150,026 "
December	250,112 "	155,797 "	97,207 "

The peak monthly figure for cargo discharge at Cherbourg was reached during November, and the drop to 250,112 tons during December brought the monthly rate to a level which was maintained until toward the close of the European campaign. The reason for the decline was the opening of Channel ports and Antwerp, nearer the combat zone. Shipments from these ports required less tie-up of railway rolling stock than on the longer haul from Cherbourg across France. Cherbourg continued to serve, however, as a point of discharge for ammunition, partly because the rain of German V-bombs on Antwerp did not permit the Allies to risk the discharge of ammunition there. Cherbourg also assisted in cleaning up the backlog of ships preloaded for the invasion,<sup>37</sup> and in overcoming the general backlog of shipping that developed in European waters during the winter of 1944-45. This latter subject will be discussed later in this monograph.

For a time it appeared that the German breakthrough during the Ardennes offensive of December 1944 might necessitate a return to heavy discharge quotas for Cherbourg, but when the German drive was stopped short of its goal, the necessity for such action was obviated. The 4th Port had increased the number of its civilian workers and POWs over

<sup>37</sup> History of the T.C. in the ETO, Vol. V, Part 1, p. 161.

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those working in July and August (civilian employees numbered 1,000 in December, and 8,000 POWs provided a steady source of labor, although only about one-half that number were engaged in port work at any one time), but during the early part of 1945 a considerable amount of port equipment formerly utilized at Cherbourg was made available to ports closer to the combat zone. In the same period, all additional physical improvements at the port were ordered halted. Meanwhile, the 4th Port had experienced two changes of commanders. Colonel Sibley had been reassigned and Colonel J.A. Crothers became Port Commander; later Colonel A.H. Schroeder replaced Colonel Crothers.

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IX. MOTOR TRANSPORT AND RAILWAY OPERATIONS

The Allied Armies in the West Line by September 1944  
up to the last phase of the campaign and the  
operation on the front line units on  
the lack of transportation  
etc. in the front line. In the many di-  
versities and handicaps of the situation the  
Army had to be able to move and to be able to  
move forward in sufficient quantity to meet Army require-  
ments. The key to the problem was the inland supply and  
since the inland route could not be utilized until the fall of 1944  
the first of the operations on the Western Front the  
desires had to be met by the port of the French railway with  
the necessary distance for the port of the line  
examine initial operations on the Western Front and the  
Military Railway line following the First and Third Armies  
France.  
The administration and operations of the Western Front  
units the line of the Motor Transport Brigade Pro-  
visional) in the line of the First and Third Armies  
began the rapid drive from (1 July) the Transport  
Section ADSEC his operations state that Motor Transport equipment in for-  
mation has increased the total transport equipment in po-  
sition of the line in support of the Army if breakthrough  
should occur." This optimistic statement was completely belied by  
the fact of the Transportation Section ADSEC operations 10

RESTRICTED

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suing developments

During July the Motor Transport Brigade supervised transportation whenever and wherever needed, in accordance with "Motran" the SOP for general purpose motor transport. The tonnage moved per day increased with the buildup of personnel and equipment in Normandy, although it varied with the priorities for movement, and the amount of tonnage landed at the beaches and ports. On 1 July the amount of tonnage moved from Omaha and Utah Beaches was approximately 18,000 tons. On 30 July the amount of tonnage moved from the beaches and ports was approximately 29,000 tons. At that time the breakthrough had occurred below St. Lo and the demand for trucks began to grow increasingly heavy.

By 1 July the G-4 officer, First Army, manifested concern over the immediate prospects for trucking operations on the Continent.<sup>3</sup> He explained that due to the introduction of a larger percentage of combat troops than originally planned, the phasing of truck companies was behind schedule. Two weeks later, with the first cargo discharge at the reopened port of Cherbourg, the number of available truck companies still had not been brought up to schedule, although apparently 35 LSTs designated for ferrying railway rolling stock, were being employed for transporting motor vehicles beyond the date set for the ferrying task.

It should be made clear that there was no motor vehicle shortage for necessary operations prior to 26 July, despite the backphasing of shipments of truck units and motor vehicles to the Continent. However, there was one disturbing factor in that, with the publication of the

<sup>2</sup> History of the T.C. in the ETO, Vol. IV, Section III, p. 5.

<sup>3</sup> First U.S. Army Group, G-4 Periodic Report for 25 June - 1 July 1944. Quoted in History of the General Purpose Vehicle, prepared for Historical Section, Hqs., USFET, Vol. II, pp. 294-5.

RESTRICTED

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plans for the attack below St. Lo, ADSEC headquarters apparently had prepared no plans for supporting a possible breakthrough.<sup>4</sup> An effort was made to point out to ADSEC headquarters the necessity for preparing such a plan, but according to the testimony of one of the Transportation officers in ADSEC, the suggestion was not adopted.

Nevertheless, as soon as the advance began the Motor Transport Brigade, Transportation Section, ADSEC, made heroic efforts to secure an adequate number of motor vehicles and keep the First Army dumps supplied. Before July had ended the Third Army also began to require support, and on occasion, French units too called on the Motor Transport Brigade for assistance. Beginning with 27 July, truck convoys which previously had taken only a few hours to complete their trips, required from three to five days to reach the First and Third Armies, find the latest unloading point and return to the beach areas for new loads. By 25 August the Motor Transport Brigade moved a daily haul of more than 10,000 long tons of cargo, with an average haul exceeding 100 miles. This lift was carried in 1,740 motor vehicle units, an average of six tons per vehicle and trailer.<sup>5</sup>

Evidence of the size of the task confronting the Motor Transport Brigade is found in some of the assignments and accomplishments for August.<sup>6</sup> Early in the month 120 2,000-gallon semi-trailer vehicles moved for the Third Army, 380,000 gallons of POL from Cherbourg to Beugeville, and a move of 1,250,000 gallons of gasoline in 5-gallon

<sup>4</sup> History of the General Purpose Vehicle, op.cit., Vol. II, pp. 314-15.

<sup>5</sup> History of the Transportation Section, ADSEC, op.cit., p. 18. Trucks attached to the Beach Commands and the 4th Port Headquarters at Cherbourg were not under the operational control of the Motor Transport Brigade.

<sup>6</sup> History of the T.C. in the ETO, Vol. IV, Section III, p. 14.



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cans was begun from Omaha Beach to La Haye Pesnil. On 5 August 72,000 tons of ammunition were hauled to St. Lo from Omaha Beach. On 11 August a daily commitment for transporting POL was raised from 300,000 to 600,000 gallons, and on that day 341,000 gallons were moved. On the preceding day an emergency haul of 100,000 gallons of Diesel fuel for the French Second Armored Division had been completed. During the middle of the month a commitment was undertaken for one truck company to arrive with ammunition from Omaha Beach at the First Army dump near La Loupe, each hour daily for six days. The Motor Transport Brigade assigned 19 Q.M. truck companies to accomplish this task. All told, truck companies under the control of the Motor Transport Brigade hauled a total of 644,832 tons of cargo during August. Some of this tonnage included cargo moved under the Red Ball Express program, a program that will be discussed shortly.

While establishing this record, the Motor Transport Brigade inaugurated a new system of dispatching. Instead of pulling out a portion of a unit, it sent out complete companies on missions. During the second week in August the Brigade secured the assignment of two companies equipped with 45-ton tank transporters, and by the erection of side rails on each vehicle, each transporter could carry as much as 40 tons of ammunition. On 13 August the Brigade was able to increase the lift capacity of some of its units by distributing 10 additional trucks to 55 truck companies already equipped with 2½-ton trucks. It also obtained 1,400 replacements to handle the additional equipment for the period of peak load movements. Later, more companies were augmented in a similar

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manner.<sup>7</sup> The Brigade also endeavored to insure proper maintenance of vehicles by establishing maintenance sections in each Q.M. group headquarters, and it provided additional personnel for this purpose. Meanwhile, the Brigade headquarters moved successively from Catz, to Le Mans to Alençon, in an effort to be located most advantageously for supervising trucking activities.

#### The Red Ball Express Route

The extent of Motor Transport Brigade accomplishment during August must be measured not against impressive amounts of cargo transported, but rather against the requirements of the U.S. Armies. In these latter terms, the record is not so favorable. This statement implies no criticism of the Brigade, for it was ably conducting one of the great motor transport operations of the European campaign. If it had been provided with a larger number of truck units, and particularly more of the heavier type motor vehicles, it might have kept the Armies fully supplied. The lack of sufficient available truck units and the most appropriate type of equipment, however, is traceable to failure to procure in the U.S. all of the heavy type vehicles requisitioned in August 1943; the reduction in the authorized number of truck units below that requested by the T.C. during the Bolero period; the course of the campaign that led to the importation onto the Continent of combat troops in place of truck companies; the rapidity of the Armies' advances once the German line was broken in southern Normandy; the inability to restore quickly and operate French railway lines; the difficulties in lay-

<sup>7</sup> On 6 August the Third Army was notified that 710 replacements were being flown in to augment the driver personnel of its truck companies.

~~RESTRICTED~~ - 218 -

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ing rapidly and utilizing POL pipelines; and possibly, the failure to prepare truck transportation for an Army breakthrough when the St. Lo campaign was ordered.<sup>8</sup> In any case, it is evident that during the Bolo planning period, few if any persons could have predicted the extent of the Armies' advances and the resulting demand on motor transport.

First Army reports make clear the deficiency in supplies as it pressed toward the German border. On 19 August the Army placed demands on ADSEC for bringing up 62,000 tons of supplies to the La Loupe area over a ten-day period.<sup>9</sup> ADSEC replied, however, that the maximum they would be able to accomplish during the period would be 26,000 tons. First Army, therefore, by the use of its own trucks, sought to make up the deficiency, in addition to meeting the demands for troop movements, which required the employment of an average of 14 truck companies daily during the week 19-26 August. It proved impossible to move forward all the tonnage required, and so on 26 August, First Army placed demands on ADSEC for deliveries covering maintenance only.

Aside from maintenance, the greatest need at the time was POL. A pipeline had been extended south on the Cherbourg peninsula as far as Vire, and later it was extended to Domfort. For a time, this extension developed a leak, so that POL haulage had to continue from Vire to the Army. Very little ADSEC transportation could be assigned to transport POL in that area. During the week of 19-26 August ADSEC trucks moved forward a total of 253 tons, as against 11,182 tons hauled by First Army

<sup>8</sup> General Eisenhower's decision to divert some American motor transport to provide greater support to the British Army, also may have affected adversely Comzone ability to supply U.S. Armies. See Ralph Ingersoll's Top Secret.

First U.S. Army, Report of Operations, Book 1, pp. 28-29.

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trucks. One train delivery of POL was made during the week.

It was against this background of expanding and unsatisfied Army requirements, and with plans of the latter part of August to establish a new service area 175 miles forward of the La Loupe area, near Hirson, that the Red Ball Express program was inaugurated on 25 August. The program initially called for laying down 100,000 tons of maintenance and reserve supplies for the First Army in the Chartres-La Loupe-Dreux triangle by 1 September, and subsequently extending the supply line eastward.<sup>10</sup> Of the 100,000 ton total, it was estimated that 75,000 tons would have to be moved by truck. The basic plan and the methods of truck operation were worked out by the OCOT, Comzone, and the G-4 officer and Service representatives of Headquarters, Comzone, and became known as the Red Ball Express operation. It was coordinated by Headquarters, Comzone, with the Normandy Base Section, where the Red Ball Express convoy would originate, and ADSEC, which commanded the operation.<sup>11</sup>

The name Red Ball was derived from pre-war days when it was used to denote a railway transportation service of particularly high priority. Red Ball road markers were easy for truck drivers to follow, especially at night when the markers and a direction arrow pointing the way could be readily distinguished. The initial Red Ball route from St. Lo to Chartres, with the return made over a different road, permitted one way traffic. Later, as the route was expanded to Paris, and then to both Hirson and Sommesous to supply respectively the First and Third Armies, some two-way traffic was permitted. None but Red

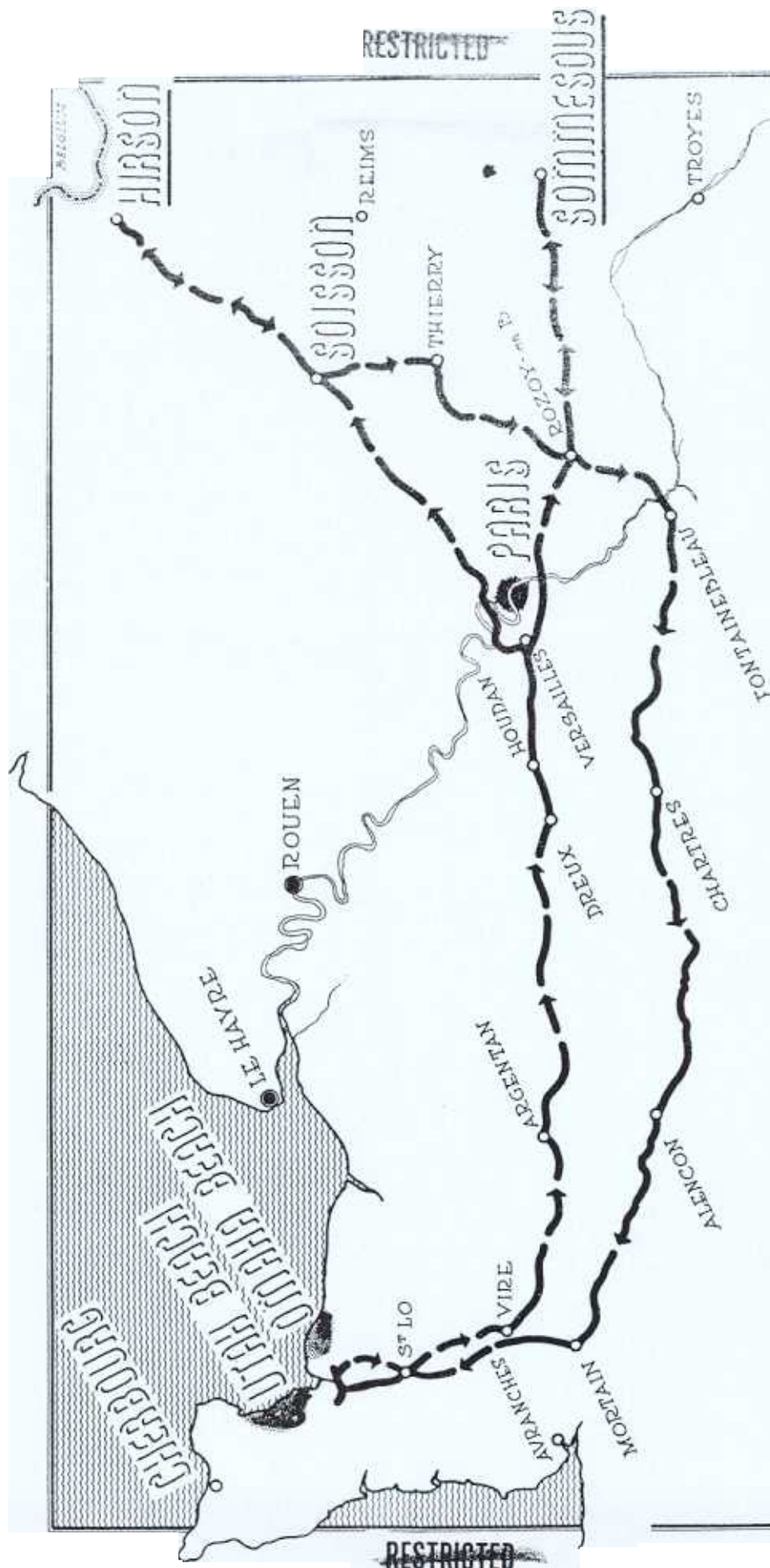
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History of the Transportation Section, ADSEC, p. 19.

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History of the T.C. in the ETO, Vol. IV, Section I, p. 5.

~~RESTRICTED~~ - 220 -



# Red Ball Express Highway Route...

SHOWING DIRECTION OF MOVEMENTS  
 FIRST ARMY - BEACH TO HIRSON & RETURN... 750 MILES  
 THIRD ARMY - BEACH TO SOMMESOUS & RETURN... 670 MILES



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Ball trucks were to travel the roads selecte , although primarily be-  
of the great need for bringing supplies forward, First Army, Third  
Army and Ninth Air Force trucks, as well as some civilian vehicles, also  
used the road. The effort to maintain a 25 mile an hour speed limit  
occasionally broke down, as when a convoy wished to make up for lost  
time or a straggler sought to catc up with his convoy.

Full headlights at night were restricted to the highway west of  
the Seine River, so that as they approached the forward areas, drivers  
were required to use "cat's eyes". Traffic Control Points were main-  
tained 24 hours a day at designated intersections, and at such points  
convoys desiring to cross the Red Ball route were regulated so that  
their crossing would not conflict with Red Ball fleet movements. Offi-  
cers at each Traffic Control Point (TCP) maintained daily liaison with  
adjacent TCPs, MP patrols, and Ordnance and Engineer units, so that in-  
formation regarding road conditions, gasoline points, water supply  
points and Ordnance Maintenance units would be available.

For operation of the Red Ball route the Motor Transport Brigade was  
furnished with driver personnel for approximately 5,700 motor vehicle  
units.<sup>12</sup> Some of the driver strength was drawn from operation at the  
beaches, some from Normandy Base Section and some ("several regiments")  
from Infantry divisions. Two Q.M. truck companies were equipped with  
45-ton tank transporters; 15 with 6-ton to 12½-ton flatbed trailers; 8  
with 2,000-gallon tank trucks; and approximately 60 with 2½-ton trucks.  
In obtaining certain truck units from Normandy Base Section, it was nec-  
essary to replace them for port clearance work at Cherbourg with port

<sup>12</sup> History of the Transportation Section, ADSEC, pp. 18 and 20

~~RESTRICTED~~ - 221



RESTRICTED

battalion personnel, previously trained for motor transport activities in the U.K.<sup>13</sup> These port battalions operated 700 2½-ton trucks which the OCOT, Comzone, obtained from the Ordnance Service, in order to employ T.C. trucks on the Red Ball haul.

The Normandy Base Section headquarters reorganized and expanded its newly formed Motor Transport Section, Transportation Section, in order to coordinate port and beach clearance with Red Ball requirements. An officer was loaned from the Motor Transport Service (formerly the Motor Transport Division), OCOT, Comzone, to aid in the reorganization and the preparation of suitable plans. It should be noted, however, that efficient operation of the Red Ball route was somewhat handicapped by the fact that when Red Ball motor transport vehicles were within Normandy Base Section boundaries, they were not subject to control by the Motor Transport Brigade, ADSEC, for the latter agency, although in command of the operation, had its authority confined to ADSEC boundaries only.

While the Red Ball program was initiated on 25 August, it required several days to place it in full operation because the motor vehicles assigned to the route had to be permitted to complete previous commitments. By 30 August, however, the Red Ball Express was carrying through St. Lo a daily load of 8,540 tons of cargo.<sup>14</sup> On 1 September 11,727 tons of cargo passed through Chartres on its way to the Armies and the forward areas. This was an exceptionally large daily lift, and during

<sup>13</sup> History of the T.C. in the ETO, Vol. IV, Section I, p. 6. The work formerly performed by the port battalions at the port was taken over by POW's.

<sup>14</sup> History of the Transportation Section, ADSEC, p. 20.

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the next two and one-half months of Red Ball operation the amount moved daily varied widely. On 5 September a revised program called for the of 4,580 tons daily from the ports and beaches to the First and Armies. In addition, 1,800 tons of bulk gasoline were to be cleared from pipeline stations and motor vehicles were to clear freight from railheads to Army delivery points.

Rehabilitation and operation of French railroads made great progress during September, as a later section will describe, so that Red Ball truck deliveries were increasingly supplemented by rail deliveries. Nevertheless, the week of 4-12 September, at least as far as the First Army was concerned, brought "the most critical supply situation of the whole campaign."<sup>15</sup> The Army had continued its advance to before the Siegfried line and then had found the lack of supplies too great a handicap for proceeding further. The First Army reported that by 12 September, "the supply lines reached the maximum extent of their elasticity, and the Army had to pause to prevent their snapping."<sup>16</sup>

Red Ball Express truck deliveries continued until 13 November when the railways were able to move the necessary tonnage. Meanwhile, on 28 September a revised plan was put into operation to limit Red Ball movements to the Paris area, where the cargo would be transferred to the railways.<sup>17</sup> Incidentally, during September a critical need for ammunition arose for units employed in the assault on Brest, and so 10

<sup>15</sup> First U.S. Army, Report of Operations, Book 1, p. 45.

<sup>16</sup> Ibid, p. 46. First Army comment on the value of Red Ball deliveries was rather cryptic, for in its report for the period, the Army stated "some benefit was had from the institution of the "Red Ball" system". Ibid, p. 29.

<sup>17</sup> History of the T.C. in the ETO, Vol. IV, Section I, p. 8; and History of the Transportation Section, ADSEC, p. 20.

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truck companies were diverted from the Red Ball operation to supply the necessary ammunition.

As the accompanying chart shows, a total of 412,193 long tons of cargo was moved by the Red Ball Express haul from the date of inauguration to the close-out of the operation. This forms an impressive record. It may be compared to the later movement of a total of 629,296 long tons in the XYZ motor transport operation, which provided support for U.S. Armies' advance east of the Rhine during 1945. It also should be seen against total T.C. trucking operations during the period of greatest Red Ball activity, that is from 1 September to 11 October.<sup>18</sup> During those six weeks T.C. motor transport units moved 2,237,661 tons of supplies - 43 percent in port clearance; 26 percent in static operations; and 31 percent in line of communication lifts. The line of communication lifts included not only the Red Ball program, but also railroad clearance to forward destinations; movement of bulk POL; and an additional priority movement of 500 tons per day of packaged POL from Bayeux to Brussels for British forces.

#### Initial MRS Operations

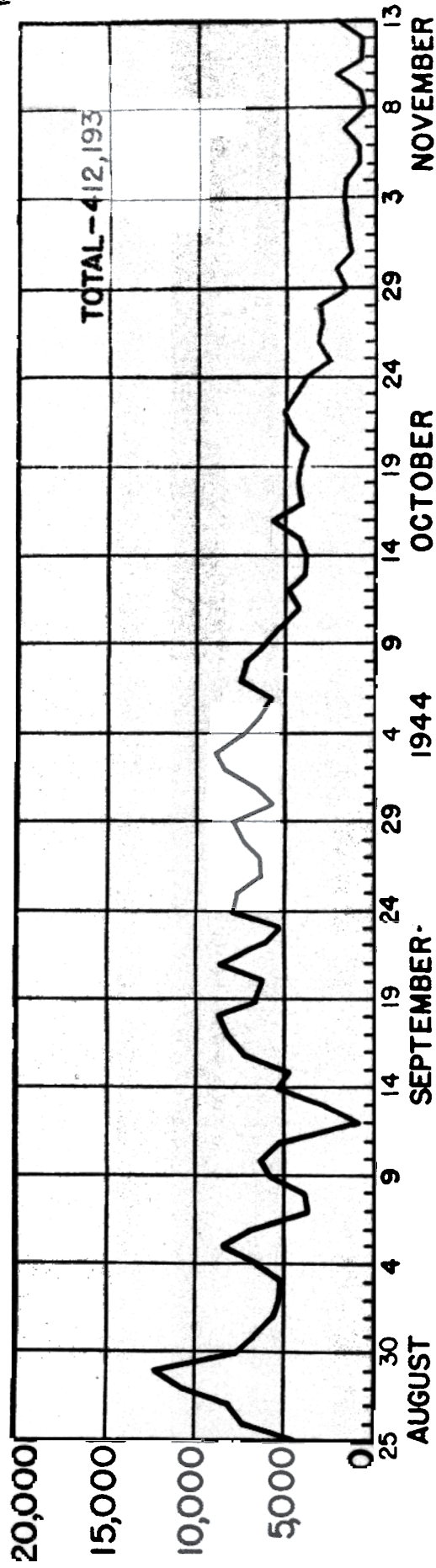
The use of French railway lines for carrying military personnel and freight developed slowly after D-Day, due largely to the fact that the tactical situation confined operations to a relatively small area. What might be termed a preparatory period that lasted until the middle of August was followed by the rapid expansion of Military Railway Service activities, both as to the area covered and the amount of cargo delivered from the Cotentin Peninsula to the Armies in the forward zone.

<sup>18</sup> History of the T.C. in the ETO, Vol. IV, Section I, p. 6.

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# RED BALL MOTOR OPERATION

LONG TONS MOVED FORWARD DAILY BY M.T.S.



STATISTICS BRANCH T.C.  
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By the end of September 1944 three main lines were operated east of Paris, one to Liege, one to Conflans and one to Commercy, near Nancy. French railroad personnel and approximately 10,500 2nd MRS troops were then moving approximately 10,500 tons of freight per day east of Paris.<sup>19</sup> In short, after it became possible and necessary to rehabilitate the lines, French railroads were used to a striking degree to supply U.S. Armies driving toward the German border.

As described in an European Theater historical report, "the railway system in France, provides a closely-knit network of primary and secondary lines throughout the country and is similar in most respects to the other railway systems on the Continent of Europe, both from the standpoint of operation and technical characteristics. Within this network, there are various concentrations of railroad lines which lead from the major ports to the center of France and to important industrial and farming areas, forming a series of well-defined main lines of railway communication. The greatest of these concentrations is found on the west and northern coasts of France from Bordeaux, from the Brittany and the Cherbourg Peninsulas, and from Le Havre converging towards Paris, which is the heart of the railway system of France."<sup>20</sup>

Totalling some 26,417 miles of single and double track lines (about one-fourth was double-tracked) French railroads were operated as a unified system by the Societe Nationale de Chemins de Fer Francais (SNCF). Before the war, French schedules for operating passenger trains were considered very satisfactory, but freight traffic had no scheduled movement. Telephone and telegraph communications in connection with French

History of the T.C. in the ETO, Vol. V, Part 2, Chap. IV, p. 9.

Ibid, p. 1.

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railway operations, and the signal system, were considered adequate. However, certain French railway practices differed from U.S. practices. For example, on double track lines, trains moved on the left hand track and locomotives for freight trains were assigned to a crew, so that when a crew arrived at the end of its assigned haul, the locomotive was disconnected and the cars remained stationary until another engine arrived to move them onward.

There also were differences between French and American railway equipment. A French freight car carried up to 20 tons of freight, as against the 50 tons capacity of American cars. Furthermore, the French chain and hook type fastening for cars had never been replaced by the more modern American automatic coupler. Generally speaking, the Germans had maintained in good condition the French rail lines that they had requisitioned for military purposes, although as will be discussed later, in certain areas two years of Allied bombing had resulted in severe damage to rail facilities, which the Germans had not been able to repair.

An advance part of the 2nd MRS landed at Omaha Beach in two groups on 17 and 24 June, and began its reconnaissance of the railway situation at that point.<sup>21</sup> It followed the combat troops to Cherbourg, arriving there on 28 June, and immediately established a railway headquarters. As previously described, the party found the main railway lines along the Cherbourg Peninsula to be in quite good condition, as very little demolition had been carried out by the Germans. However, the tunnel east of Cherbourg had been blasted and all bridges were out. The lines along the Cherbourg waterfront had been destroyed by the Germans or se-

<sup>21</sup> Ibid, Vol. IV, Section IV, p. 3.

~~RESTRICTED~~ - 226 -



verely bombed by Allied aircraft, but the nearby marshalling yards and the Cherbourg roundhouse were not greatly damaged. Farther down the peninsula and at important junction points such as La Haye-du-Puits and Folligny, the damage caused by Allied bombing was very extensive.<sup>22</sup>

Folligny offered a good example of what had happened to most of the yards in the wide circle of junctions surrounding the Paris area. One theater report asserts that the yard was "an indescribable mass of burned cars, twisted steel, and bomb craters. The craters were so numerous in the yard proper that they overlapped one another. All the railroad buildings were down, and also most of the town."<sup>23</sup>

On the other hand, in the drive for Cherbourg the U.S. forces had captured a great deal of useful rolling stock, including 1,384 "wagons" 50 locomotives and 11 streamlined passenger coaches.<sup>24</sup> The wagons included French, Belgian and German stock, and before using them, each piece had to be examined by MRS personnel for possible booby traps. The French locomotives were very old, some having been used in the last war, and since that time had not been carefully maintained. A large stock of rail also was found stored, some of which had been sent to France during the last war.

The 2nd MRS representatives quickly discovered that many of the ablest French railroad workers had been carried eastward by the Germans, but those that were left were anxious to return to work with the Ameri-

<sup>22</sup> In certain sections, the Germans had ignored proper track maintenance, so that it needed reinforcing for MRS use.

<sup>23</sup> Ibid, p. 4.

<sup>24</sup> By 1 October 1944 it was estimated that the MRS had recovered approximately 20 percent more railway equipment than it had expected to capture.

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can troops. Several of the officers of the SNCF were commissioned in the French Army and attached to the 2nd MRS. They and the French railroad workers proved helpful in reestablishing train service

The remainder of the 2nd MRS headquarters and various railway units began to move from England to France shortly after the arrival of the advance detachment. Brigadier General Burpee, Commander of the 2nd MRS, reached France on 29 June, and the remainder of his headquarters was present by 4 July.<sup>25</sup> Four days later a detachment of the first operating unit, the 728th Railway Operating Battalion, arrived, and by the end of the month, in addition to 2nd MRS headquarters, there were one railway grand division (the 707th), three operating battalions and one shop battalion on the Continent

Repair and rehabilitation of damaged French railroads began about 1 July 1944. During the months immediately following, the work performed by the Corps of Engineers, who were responsible for all such construction efforts, was largely of a stop-gap character, in order to permit trains to commence movement at the earliest practicable date.<sup>26</sup> The most important phase of construction consisted of the repair of destroyed railroad bridges, and although Corps of Engineer units were greatly aided by MRS troops and French civilian workers, they faced certain serious difficulties.

For example, even prior to D-Day the Engineers were deeply concerned over the shortage of available railway construction tools and the inadequate training of Engineer troops for railway reconstruction

<sup>25</sup> 2nd MRS headquarters was officially opened at Cherbourg on 3 July.

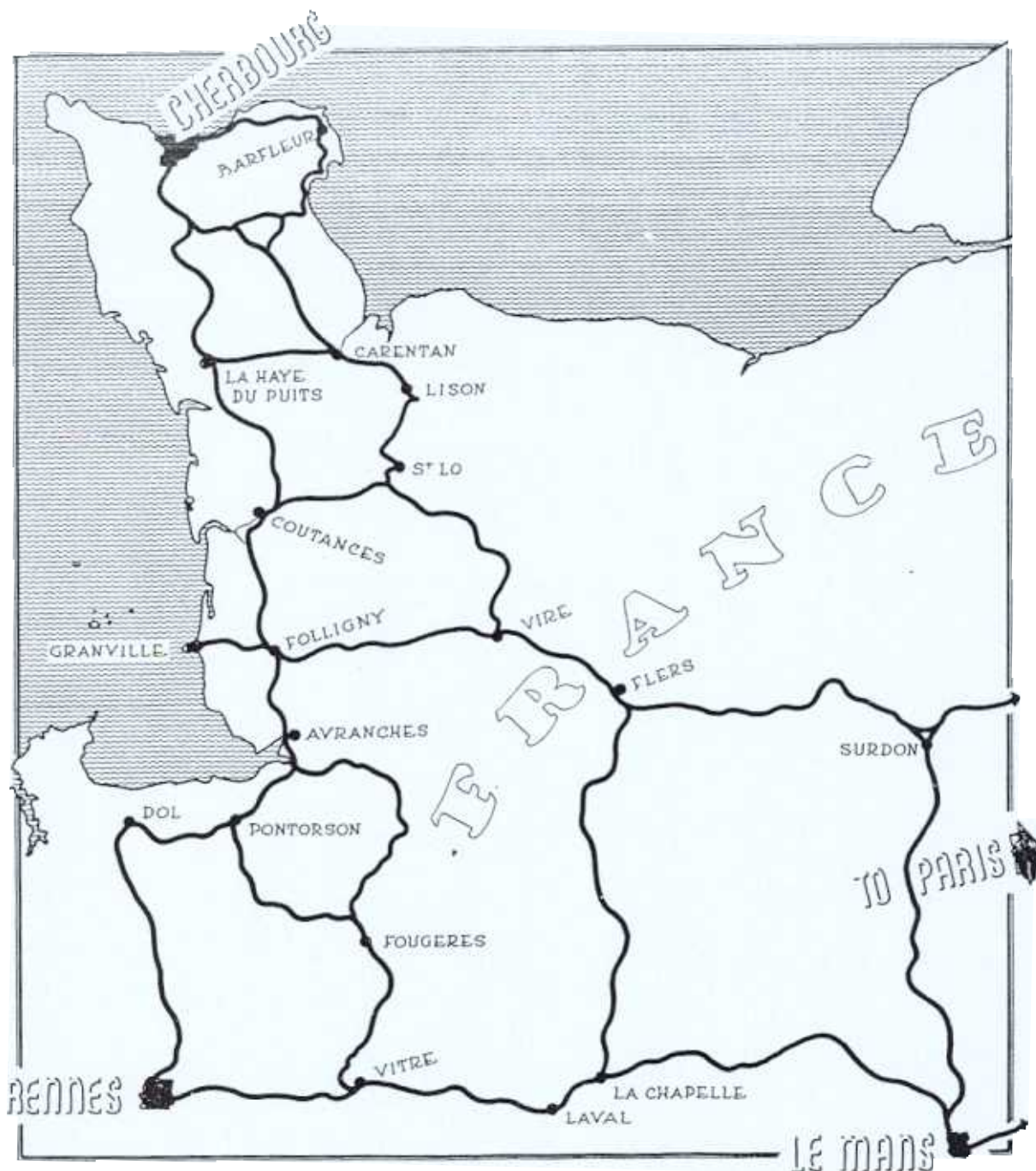
<sup>26</sup> A considerable amount of rebuilding and strengthening of railway lines occurred later when the urgency for commencing railway operations had passed.

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# Actual Railway Track Operated and Maintained by U.S. Army..... D+ 90

(6 AUGUST 1944)



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tasks.<sup>27</sup> These deficiencies did not greatly hamper railway rehabilitation efforts until after the breakthrough below St. Lo, when the speedy advance of the combat forces placed a premium on the equally rapid rehabilitation of rail lines. Nevertheless, there had been a certain deficiency in the shipment of construction tools and equipment to the Continent. By 31 July, 126 miles of track and four railway bridges had been repaired and the railway reconstruction at Cherbourg was practically completed.

In the 50 days following the St. Lo attack the rate of rehabilitation was almost 10 miles per day. To accomplish this, railway reconstruction was given top priority over other forms of Engineer construction work, and a new plan was adopted for the method of rehabilitation. In place of depending on Engineer units assigned to perform all construction work within a given area, ADSEC secured the activation of three Engineer groups, designated A, B, and C, with the specific mission of railway reconstruction.<sup>28</sup> Each group consisted of an experienced Engineer general service regiment, with one or more other units attached. One group was assigned to each of the First and Third Army rear areas, and the third was deployed in support of the other two. Later this latter group was assigned to the rear of the Ninth Army. This arrangement proved effective, for in the 50 days following 17 July, 3,355 miles of track were placed in operation, and 36 bridges were reconstructed.

The first scheduled MRS train operated over a main line in France ran from Cherbourg to Carentan and return (a distance of about 31 miles)

<sup>27</sup> Report of the General Board, USFET, Transportation Section, Study #122, p. 53.

<sup>28</sup> Ibid, pp. 53-4.

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on 11 July.<sup>29</sup> It was manned by a train crew of the 729th Railway Operating Battalion, and consisted of a French steam engine and two streamlined passenger cars, preceded by a box car to receive the blast of any mine over which the engine might pass. However, the run was made without incident, and a tentative passenger train schedule was drawn up for future trips. On 13 July a work train was run from beyond Carentan to haul 15 cars of captured cement for use at Cherbourg. Four days later a new time-table was published, establishing first-class passenger service between Cherbourg, Carentan and Lison. On 22 July the first troop train was operated from Cherbourg to Lison.

As previously noted, on 29 July, the first shipment of railway rolling stock to reach Cherbourg arrived from England. The first railway equipment landed on the Continent had arrived at Utah Beach on 10 July. The latter consignment consisted of two 350 h.p. Diesel locomotives and some flat cars carried on LSTs, which discharged directly onto the shore.<sup>30</sup> All of this railway equipment had been placed on truck trailers, and prime movers pulled it from the landing craft to the main rail line. Subsequent cross-Channel deliveries were made at Cherbourg, and by the end of July a total of 48 locomotives (35 Diesel and 13 steam locomotives) and 184 railway cars had been received from the United Kingdom.<sup>31</sup> The number of captured locomotives had then reached 102, in addition to 1,641 freight and 76 captured passenger cars. The total amount of freight hauled by the 2nd MRS, to 31 August, was 31,907 tons. It should be observed that the average load per car was less than six tons.

<sup>29</sup> On 7 July a train pulled by a jeep with flanged wheels travelled from Cherbourg to Carentan.

<sup>30</sup> History of the T.C. in the ETO, Vol. IV, Section IV, p. 13.

<sup>31</sup> Ibid, p. 9.



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The preparatory program of railway rehabilitation and delivery in France of MRS equipment and troops, continued during the first part of August, until, following the St. Lo breakthrough and clearance of rail lines outside the Cotentin Peninsula, there were heavy demands for the movement of freight by rail toward Paris. During the first weeks of August an MRS shop battalion was particularly active in repairing captured locomotives and rolling stock, although it had few mechanical tools. On 9 August the MRS endeavored to put into effect a rule requiring the operation of double tracked lines on the right hand side, but as the French signal and switching systems were designed to run on the left-hand principle, the rule had to be revoked.<sup>32</sup> The effort to use single track lines for two-way traffic was cut short when an order prohibited such practices, and so use of the lines became correspondingly restricted until a branch line was opened.<sup>33</sup>

Considerable difficulty in initial railway operations resulted from the hasty erection of temporary communication lines to replace destroyed facilities.<sup>34</sup> Isolated German troops and German sympathizers frequently cut the lines, delaying train movements. When such breakdowns in communication occurred, a courier in a jeep was dispatched with orders from the last point of communication to the next dispatch point. Occasionally, secondary rail lines had no communication facilities whatsoever. Trainmen also were handicapped by a lack of available water, though at one station the Corps of Engineers dug a well and built a

<sup>32</sup> Ibid, p. 11.

<sup>33</sup> Ibid, p. 12.

<sup>34</sup> Historical reports state that the communication system requirements for efficient railroad operation were inadequately visualized. Ibid, p. 12.



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pump out of odds and ends, to service locomotives with empty water tanks. The train crews themselves were not always experienced railroaders, and their jobs were made more difficult by the lack of skilled native train and station men, who might have helped out because of their knowledge of local conditions.

During July and August, the preparation of and allocation of supplies to MRS trains and trainmen were not complete. Lanterns, fuses or torpedoes might not be provided crews operating at night. Occasionally, when trains were dispatched or switched at night, trainmen used personal flashlights, cigarette lighters and lighted cigarettes for flagging.<sup>35</sup> Considerable difficulty also resulted from overloading trains. Initially, the Movements Division, OCOT, decided on the size of trains, and it frequently called for a too heavy makeup. Later, the procedure was changed, and while the Movements Division decided the amount of supplies to be shipped, the 2nd MRS made up the trains.

Despite earlier accomplishments, the first major haul of supplies by the 2nd MRS occurred on 15 August, when the first of a 31 train consignment loaded with high priority supplies began moving to the Le Mans area for the Third Army.<sup>36</sup> Each train carried an average of 1,000 tons of supplies, and the initial days' dispatch was to be followed by an almost equal number daily. At that time the main line from Cherbourg to Le Mans was not yet open, and so trains used a secondary route for a considerable part of the way. Before the operation was completed, how-

<sup>35</sup> Trainmen might be required to work 48 hours without rest, thus impairing their efficiency.

<sup>36</sup> Ibid, p. 17. Third Army trucks picked up the supplies at Le Mans for delivery to the combat area.

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even, the 100-ton gap was closed, freed the main line tracks and simplifying the task of returning empty cars.

On 30 August, the first American operated train arrived at the Batignolles Yard in Paris, and the first rail shipment of freight east of Paris was made on 4 September. Thereafter, development of railway operations followed rapidly in the wake of the advancing First and Third Armies. It should be noted, however, that during August, the 2nd MRS had hauled a total of 104,262 tons of freight (80,626 tons forward and 23,636 tons evacuated) and carried 24,926 passengers (11,613 personnel evacuated). Evacuations of personnel consisted chiefly of casualties who were carried in the 40 French box cars fitted for temporary service as hospital cars.

#### Rail Operations East of Paris

When the 2nd MRS began operations east of Paris it had to deal with quite different circumstances from those previously encountered. The railway pattern east of Paris was designed to handle a greater volume of traffic than that to the west, and the Germans had paid proportionately better attention to its upkeep and maintenance.<sup>37</sup> In addition, the greatest concentration of Allied bombing occurred west of Paris, and during the period of German retreat east of Paris they had moved more speedily than in withdrawing from Normandy toward Paris. Hence their destruction of rail lines there was "neither as complete nor as judicious."

In assuming control of railway operations in eastern France, where

<sup>37</sup> Ibid, pp. 21ff.

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one line shortly was operated from Paris into Belgium, the 2nd MRS headquarters moved to Paris, a move which was completed by 9 September. Three railway grand divisions were placed in areas which permitted each to supervise one of the main lines extending west of the French capital. It is necessary to point out that MRS units located within the various Sections and Base Sections of the Communications Zone were responsible to the Commanding General of their respective Section or Base Section for administration and discipline only, and to the 2nd MRS for technical operations and supervision. Their activities were coordinated through the Section or Base Section Transportation Office. Under the latter, the Rail or Road Traffic Officer (RTO) was responsible for the clearance of loaded and empty trains at railheads, dumps, and loading points. The various Railway Grand Divisions had their boundaries so located that they conformed as closely as possible to the areas of the Sections and Base Sections, in order to facilitate supervision and technical control.

During September 1944 railway rehabilitation by the Corps of Engineers and operation by the 2nd MRS, continued along the main line from Cherbourg to Paris as well as east of that city, but the line from the Brittany Peninsula, via Rennes, Le Mans and Chartres to Paris, was turned over to the French for SNCF operation. Such a step was taken in accordance with pre-invasion planning which had envisaged three phases of American operation. Phase one called for solely American rehabilitation and operation of French railway lines; phase two would bring joint French and American operation; and phase three would see operational responsibility revert wholly to the French. The Brittany

~~RESTRICTED~~ - 234 -

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line was the first to be placed in the phase three category.

Release of railway lines to the French enabled MRS units to be assigned to more critical areas. The need for additional MRS personnel strength became particularly great during September, as was true also of locomotive power and rolling stock. Most critical of all was the demand for experienced railway officers, and in order to meet the demand, an urgent request was dispatched to the U.S. for the immediate shipment to France of 25 officers, with a rank of Lt. Colonel or Major.<sup>38</sup> MRS units in Persia and Alaska were called on to meet part of the request. In order to supplement officers obtained from these sources, a number of experienced U.S. railroad officials were granted commissions in the Army and dispatched to France by airplane within a period of three days. During September railway operating personnel were placed in service in France, even before their equipment arrived, as fast as they were received from the U.S.<sup>39</sup>

As previously indicated, the Armies' advance across France, which placed 2,012 miles of single track and 2,776 miles of double track line under 2nd MRS control by 1 October, had created a tremendous demand for locomotives and rolling stock. The theater Chief of Transportation pushed the program of ferrying locomotives from the U.K. to the Continent, and secured the similar transfer of 200 railway cars per day. Most of the captured French locomotives had proved to be non-serviceable and not easily repaired. Even by 1 September the 2nd MRS was drawing

<sup>38</sup> Letter to Maj.Gen. F.S. Ross from Maj.Gen. C.P. Gross, 29 Aug. 1944. Five of the 25 officers were to be railway executives, 10 railway operating specialists and 10 engineering technical specialists.

<sup>39</sup> Five railway operating battalions had arrived in France during the last days of August.

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heavily on reserves of rolling stock in the U.K., and Major General Ross was contemplating increasing the size of his requisition on the U.S. for railway equipment, particularly locomotives. His suggestion along this line encountered opposition in the U.S., for it was believed that the British had not fulfilled their commitments on locomotive production, or the return for 2nd MRS operation of all locomotives loaned during the Bolero period.<sup>40</sup> However, there were still a considerable stockpile of locomotives in the U.S., and more scheduled for production.

The greatest immediate problem faced by the 2nd MRS in September continued to be signal communication, although lack of available coal and water caused no end of difficulty.<sup>41</sup> In addition to moving military freight, the French railroads also were used to supplement motor transport for hauling of food for the inhabitants of Paris.<sup>42</sup> Before the capture of the city most of the Parisians were badly undernourished, and many had reached the point of starvation. American food was brought in during September to supplement food from the French countryside, much of which was unable to reach Paris because of the transportation crisis.

Including the tonnage hauled in conjunction with the Red Ball Express highway program, a total of 1,600,000 ton-miles of freight was moved by rail east of Paris during September. At the end of that month, most of the U.S. Army supplies moved across France from the coast were carried by rail, and the total amount of supplies of all types so moved reached 355,020 tons.<sup>43</sup> Passenger travel also had increased over move-

<sup>40</sup> Letter to Maj.Gen. F.S. Ross from Maj.Gen. C.P. Gross, 29 Aug. 1944.

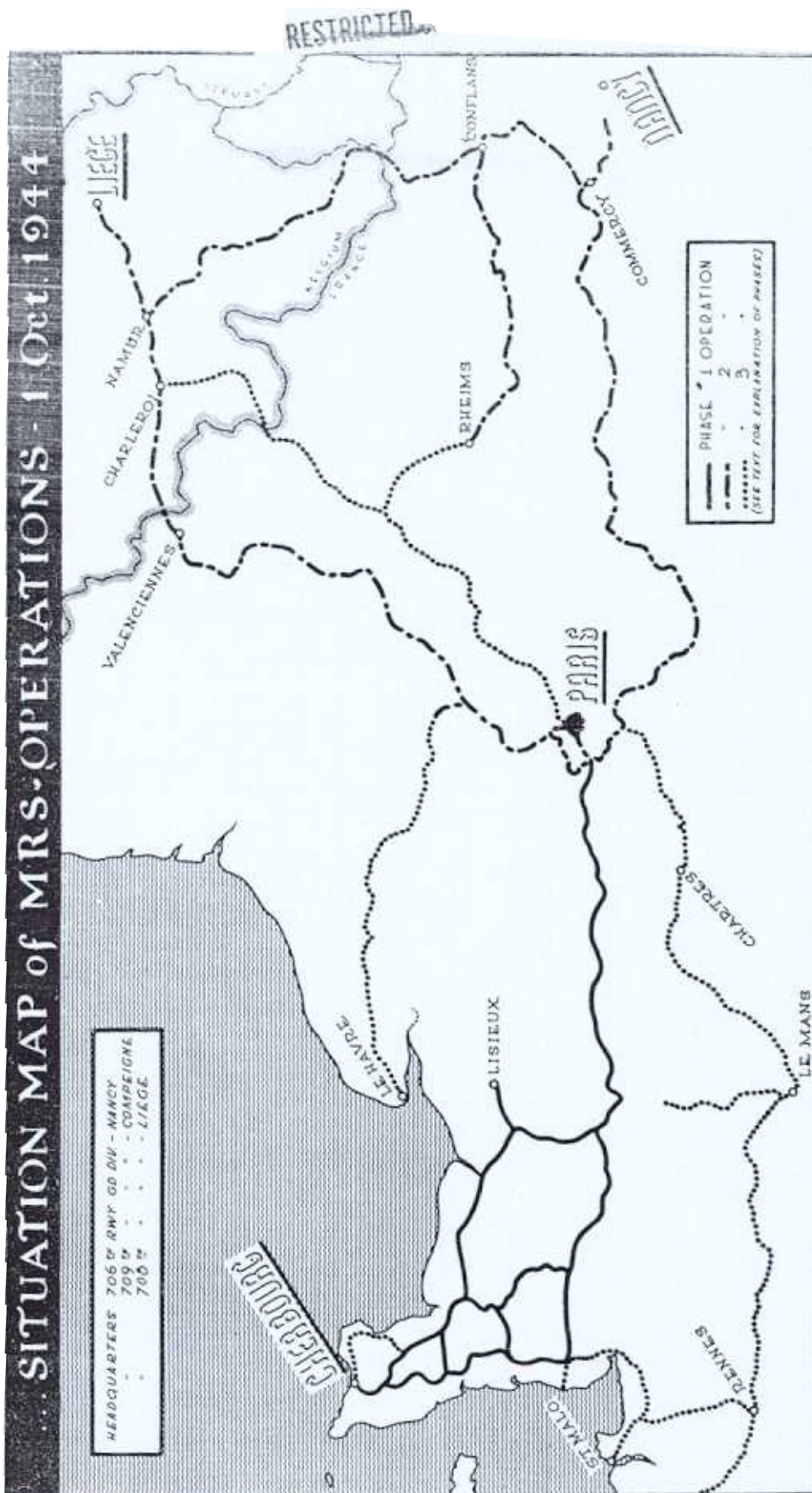
<sup>41</sup> At the end of August 10 mobile radio stations were obtained to serve the most essential needs of the 2nd MRS.

<sup>42</sup> History of the T.C. in the ETO, Vol. IV, Section IV, p. 21.

<sup>43</sup> Ibid, p. 23.

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ments in August, and the number of casualties evacuated by rail rose, with material assistance from the use of 14 hospital trains ferried from the U.K.

RESTRICTED - 237 -

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## X. EXPANDED OPERATIONS ON THE CONTINENT

The relatively static operations of the Allied Armies in western Europe during the middle of September 1944 was followed by a period of slow, grinding progress. Toward the latter part of that month, General Eisenhower endeavored to obtain a crossing of the lower Rhine near Arnhem by a combination of the largest airborne operation ever attempted, and the northward thrust of British land forces. The operation fell short of its goal, but succeeded in securing a front as far as the Maas River. By the latter part of October the measured advance of the First U.S. Army resulted in the capture of the important German city of Aachen, northeast of Liege, Belgium. As General Marshall relates, it was during this period that, "after many computations and exchanges of radio messages with the War Department to determine the effect on our hard-pressed and delicately balanced shipping situation, it was decided to rush the movement from the United States of the infantry regiments of 9 of the 11 remaining divisions ahead of the scheduled departure of the entire divisions."<sup>1</sup> These units were to replace other U.S. troops, many of whom had been fighting steadily since D-Day, and aid in launching an Allied winter offensive, which, it was believed, would quickly end the European campaign.<sup>2</sup>

### The Military Developments

The winter offensive against the Reich began 8 November, but ad-

- <sup>1</sup> General G.C. Marshall's Report on Winning the War in Europe and in the Pacific, p. 42.
- <sup>2</sup> General Eisenhower expressed the hope that this offensive might bring an end to hostilities before 1945. Letter to Maj.Gen. C.P. Gross from Brig.Gen. J.M. Franklin, 5 Nov. 1944.

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vances were slow and costly in troops and critical supplies. Then on 16 December Field Marshal Von Rundstedt, acting on the direct orders of Hitler, launched the Ardennes counteroffensive which succeeded in pushing into Belgium and Luxembourg and reaching, at its farthest point, more than 50 miles inside First U.S. Army lines. The counteroffensive was stopped far short of its goal, which was the capture of the important Allied supply port of Antwerp, and did not even approach too closely to the large U.S. supply depots near Liege and Manner. However, German drive had delayed for about six weeks a new Allied offensive to the North.

On 23 February General Eisenhower commenced the main assault for destroying the German Army west of the Rhine. By the first week in March Cologne was captured, and the Germans were in full retreat. In their confusion caused by the rapidity of the Allied thrust, the Germans failed to destroy the Ludendorff railroad bridge across the Rhine at Remagen, and on 8 March units of the First Army seized the bridge, the only one left intact throughout the entire length of the River. The First Army quickly established a strong force on the east bank, and by 25 March this bridgehead was supplemented by a Third Army crossing of the River south of Mainz.

Neither of these crossings had occurred in areas where General Eisenhower intended to launch his drive into the heart of Germany. Plans for this final stage of the campaign had been agreed to by the Combined Chiefs of Staff meeting at Malta early in February 1945, called for a Rhine crossing in the area near and north of Wesel. To aid in carrying out the drive, the Malta Conference approved plans for moving

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several Allied divisions from the Italian to the Western front. The movement began on 10 February and was virtually completed by the middle of April.<sup>3</sup> It involved embarking approximately 110,000 troops and loading 30,000 vehicles at Italian ports, transporting them to southern France and disembarking and moving them to the northern end of the Western Front.

The contemplated Rhine crossing, according to General Eisenhower, required preparation for the largest and most difficult amphibious operations since the landings in southern France.<sup>4</sup> The assault involved naval as well as military forces, since the equipment available to the Army Engineers alone was insufficient to cope with the task. Months previous to the date set for the crossing, exhaustive experiments had been carried out on the rivers in Great Britain, offering bank and current conditions similar to those of the Rhine. On the basis of these experiments, LCMs and LCV(P)s were selected for the undertaking, and these were transported across northern Europe to the Rhine, partly by waterway and partly overland on special trailers. British and American Naval forces were built up to operate the Rhine ferry service, and valuable experience was gained when some of the craft were employed in the Remagen area early in March.

Following the customary aerial and artillery preparation, the British Second Army began the assault crossing of the Rhine on 23 March. The next day Allied airborne units were dropped near Wesel, and contact was quickly established between the amphibious and airborne forces. On the

<sup>3</sup> U.S. Army Transportation and the Italian Campaign, Monograph #17, Historical Unit, OCT, War Department, pp. 313-14.

<sup>4</sup> Report by the Supreme Allied Commander, op.cit., p. 99.

~~RESTRICTED~~ - 240 -

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same day as the airdrop, elements of the Ninth U.S. Army crossed the Rhine between Wesel and Duisburg. Numerous bridgeheads insured the success of the operation, and with First and Third Army drives from their bridgeheads, the way was paved for the encirclement of the Ruhr (completed by 1 April), the elimination of the Ruhr pocket, and a general Allied rush to the Elbe and the Danube Rivers, bringing to a successful termination the Allied campaign in Europe on 8 May.

These developments in the tactical situation were supported by the almost constant activity of the Allied Air Forces in destroying the transportation facilities upon which the Germans relied for the movement and reinforcement of their Army. The success of the air assault is indicated by the fact that on 22 January alone the Air Forces "destroyed or damaged more than 4,192 pieces of (German) heavy equipment, including locomotives, rail cars, tanks and motor and horse drawn vehicles."<sup>5</sup> On the other hand, U.S. service forces provided American combat units with the elements necessary to stop counteroffensives and drive toward Berlin, in amounts unprecedented in history.

#### New Transportation Tasks

The forward movement of American troops, supplies and equipment from the U.S., the U.K., and the Mediterranean Theater, was accomplished in the face of a shipping shortage, and severe strains on port, rail and motor transport facilities in Europe. These strains were augmented by the normal havoc of war and German destruction of bridges and railway lines, as well as by increased German air activities against the Allied

<sup>5</sup> General G.C. Marshall's Report on the Winning of the War in Europe and the Pacific, p. 45.

~~RESTRICTED~~ - 241 -

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on, adverse weather conditions - heavy rains and mud, snow and ice, and floods that followed heavy rains and thaws.

In respect to the American forces, the T.C. played a prominent part in bringing troops and mater campaign progressed, the theater OCOT expanded its activities was granted an increased amount of control over transportation facilities and means of supply. The

of T.C. and OCOT contributions include operating an increasing number of European ports, either singly or jointly with the British. There also was a vast expansion of the railroad network, operating under the Military Railway Service. Ultimately, the network was placed under a General Headquarters, MRS, which controlled the activities of the 1st and 2nd Military Railway Services in hauling Army freight from Atlantic and Mediterranean ports into Germany.

Motor transport operations likewise expanded, for while the Red Ball Express Route was terminated in November, other line of communication hauls from Le Havre or Antwerp or the railheads before the Rhine came into prominence. Control of these over-the-road operations was placed in Motor Transport Service (Provisional), which like the General Headquarters, MRS was responsible to the theater Chief of Transportation. An Inland Waterways Division, OCOT, formed in November 1944, assumed control of the movement of both military and civilian cargo on the rivers and canals of western Europe. Furthermore, on 30 March 1945 an Air Branch was activated in the Movements Division, OCOT, for the purpose of coordinating the task of supplying the rapidly advancing Armies by air.<sup>6</sup>

<sup>6</sup> Historical Report of the T.C. in the ETO, Vol. VI, Part 1, pp. 142ff; and Vol. VII, Part 1, pp. 75ff.

~~RESTRICTED~~ - 242



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In addition to operating or coordinating these individual types of transportation the OCOT assisted in establishing and/or improving and supervising two complementary though not necessarily related developments which affected the character of the European campaign and world-wide U.S. commitments. These developments were an improvement in ship turnaround time in European waters, and the inauguration on 1 January 1945 of a monthly Port Operations and Supply Movement Program, which was intended to insure the orderly, effective and economic delivery of supplies to the combat zone. In supervising these two fields of transportation, the OCOT was granted authority to operate where G-4, Comzone formerly had exercised a large measure of control. Actually, the shift in authority involved a more careful delineation of respective areas of activity for the two agencies, and by appropriate coordination of functions, a significant contribution was assured for meeting theater supply requirements and the shipping demands of other theaters.

It will not be possible in the time available for writing this monograph to describe in full the topics suggested above. Nor will it be possible to treat with more than passing reference related topics such as shipping convoys; relations between the T.C. and the various theater services, headquarters and Armies; support of the theater OCOT from the Office of the Chief of Transportation, ASF; accomplishments of outstanding T.C. units and officers; supplies for European civilians and military forces; and cooperation between the T.C. and military and civilian transportation personnel of European countries. These subjects must be left for fuller treatment in other studies.

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Changes in the OCOT

By the early part of September 1944 the staff of the OCOT had become established in Paris, forming a headquarters essentially the same in structure as that which operated in the U.K. About a month later a change was begun in the assignment and structure of the Motor Transport Service (until mid-August known as the Motor Transport Division) when the Motor Transport Brigade, ADSEC, was dissolved and its personnel incorporated in the Motor Transport Service (MTS), OCOT. The technical supervision and operational control of line of communications hauling then were assigned to MTS.<sup>7</sup> This unit also exercised supervisory control over the activities of all T.C. motor transport groups, battalions and companies within the various base sections of Comzone. However, this control did not extend to SOLOC areas until January 1945.

Apparently the functions of the MTS had been enlarged under verbal instructions, and on 26 November these instructions were issued as an order authorizing the provisional organization of the 6995th Hqs. and Hqs. Co., Motor Transport Service, Comzone, ETOUSA. The nucleus of this agency was found in the personnel of the existing MTS staff, to which additional personnel were assigned. An effort was made to secure War Department approval for a special table of organization for the unit, but the request was referred back to the theater as a matter of theater concern only.<sup>8</sup> An account of the various express routes supervised by the reorganized MTS will be given in a later section of this monograph.

The last quarter of 1944 also witnessed the activation of a sepa-

<sup>7</sup> Ibid, Vol. V, Part 1, Chap. II, p. 67.

<sup>8</sup> Report of the General Board, USFET, Transportation Section #122, op. cit., p. 14.

~~RESTRICTED~~ - 244 -

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rate Inland Waterways Division in the OCOT when responsibility for the control of inland waterway routes was transferred from a Comzone Committee to the OCOT. The new division actually was formed by enlarging a former branch of the Marine Operations Division. The latter Division itself became of increasing importance as new Channel ports were opened, and as new measures were adopted to meet the problems of port and shipping congestion that developed in Atlantic ports during the fall of Brig. General J.M. Franklin was sent from the OCT, ASF, to head the Marine Operations Division temporarily, and he assisted the OCOT in creating improved working relations with G-4, Comzone, reducing port congestion and improving ship turnaround time.

As indicated in an earlier paragraph, the work of the Marine Operations Division was facilitated by the inauguration of the Port Operations and Supply Movement Program, worked out by the Control and Planning Division, OCOT. The Movements Division, OCOT, also was particularly active in implementing the Program. The 2nd MRS increased its activities as a larger proportion and increasing amounts of supplies were transported to the Armies by rail during the last quarter of . The size of this task will be described later, but an indication of the magnitude of the effort made by 2nd MRS to meet its responsibilities is found in Maj. General Ross's statement of 10 October that MRS crews were working almost beyond the breaking point in their endeavor to keep supply trains moving forward.<sup>9</sup>

The several divisions of the OCOT, with their respective chiefs as

<sup>9</sup> Personal letter to Maj.Gen. C.P. Gross from Maj.Gen. F.S. Ross, 10 Oct. 1944.

RESTRICTED - 245

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chart which follows:

Chief of Transportation - Major General F.S. Ross  
Deputy Chief of Transportation (U.K. Base Section)  
Col. D.S. McConnaughy  
Deputy Chief of Transportation - Col. D.F. Traub  
Executive - Col. S.A. Decker

Headquarters Divisions:

Chief, Control and Planning Division - Col. H.A. Murrill  
Asst. Chief of Transportation, Administration - Col. S.A.  
Decker  
Asst. Chief of Transportation, Movements - Lt. Col. H.L. Mack  
Asst. Chief of Transportation, Supply - Col. M.G. Jewett  
Asst. Chief of Transportation, 2nd MRS - Brig.Gen. C.L.  
Burpee (General Manager)  
Asst. Chief of Transportation, Marine Operations - Brig.Gen.  
J.M. Franklin  
Asst. Chief of Transportation, Inland Waterways - Col. N.A.  
Ryan  
Asst. Chief of Transportation, Motor Transport Service -  
Col. R.B. Warren

The responsibilities and activities of the OCOT were considerably enlarged when Headquarters, SOLOC was deactivated on 12 February 1945, and control of its activities was transferred directly to Comzone headquarters. The SOLOC headquarters staff was incorporated largely into Comzone headquarters. For example, Brig. General M.W. Gilland, formerly of SOLOC became the G-4 officer, Comzone, and Maj. General T.B. Larkin, formerly Commanding General, SOLOC, became Chief of Staff, Comzone. Similarly, former T.C. officers in SOLOC were assigned to appropriate positions in the OCOT, and, with their lengthy experience in both the Mediterranean and the European Theaters, greatly aided the OCOT in carrying out its enlarged responsibilities.

In several respects, the OCOT reorganization that accompanied these developments permitted a greater centralization of transportation control

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than had obtained formerly. Not only were the former transportation activities of Delta Base Section and Continental Advance Section brought under the supervision of the OCOT, but the independence of the MRS from

Transportation Officer, which had existed under SOLOC, was corrected. It will be recalled that Brig. General Gray, Director General, 1st MRS, reported directly to the Commanding General, SOLOC, and the only phase of railway operations with which the Transportation Officer, Brig. General Stewart, was concerned (aside from the coordination of railway supply activities) was priority of rail movements in SOLOC. As previously mentioned, during February the 1st MRS and the 2nd MRS were placed under the control of a General Headquarters, MRS, which was activated within and made responsible to the theater Chief of Transportation. Brig. General Gray was appointed Director General, General Headquarters, MRS, effective 12 February 1945.

At the same time, Brig. General Stewart was appointed Deputy Chief of Transportation, OCOT, to serve with Colonel Traub, who remained a Deputy Chief of Transportation.<sup>10</sup> Supervisory control of the several divisions of the OCOT was divided between these two officers, in general, along the lines of administration and operation. Brig. General Stewart supervised and directed the activities of the Movements, MRS, Inland Waterways and MTS Divisions, and Colonel Traub supervised and directed the Control and Planning, Administrative, Marine Operations and Supply Divisions. Brig. General Stewart also was assigned the responsibility for organizing and controlling an integrated civil and military

<sup>10</sup> History of the T.C. in the ETO, Vol. VI, Part 1, Chap. II, pp. 1-2. Colonel McConaughy was relieved from duty as Deputy Ch/T., but remained as Transportation Officer, U.K. Base. Other personnel changes are recorded in the source cited above.

~~RESTRICTED~~ - 247 -



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rail program, referred ART (Allocation of Rail Transportation). Placing the Marine Operations Division under Colonel Traub's supervision was explained as due to the desire to take advantage of the continuity of his experience and background in the complex shipping problems in the theater, and because, with Maj. General Ross, he represented the T.C. on the theater Shipping Control Committee.

One other significant change in the 12 February reorganization was the appointment of Colonel Thomas Fuller, former Executive Officer, Transportation Section, SOLOC, to serve as Executive Officer, OCOT. In addition to carrying out the regular duties of his office, Colonel Fuller was placed in charge of T.C. post-hostilities and redeployment planning. With the 12 February reorganization completed, the structure of the OCOT remained essentially unchanged throughout the remainder of the campaign.

#### Operating the Ports of Le Havre and Rouen

During September 1944 T.C. port headquarters were operating Cherbourg and the minor Normandy and Brittany ports as well as Marseilles and the sub-port of Du Bouc. At the same time, Omaha and Utah Beaches, operating under Beach Commands staffed largely by personnel from Engineer Special Brigades, continued to receive and distribute a heavy flow of cargo. Beginning in October, Le Havre, Rouen, Antwerp and Ghent successively were brought into operation, chiefly under T.C. port headquarters that were moved from other Continental assignments. Total monthly discharge at all U.S. operated ports in western Europe increased from 1,210,290 long tons in September to a peak of 2,039,778 long tons in March 1945.<sup>11</sup> The record for April nearly equalled that for March

<sup>11</sup> T.C. Monthly Progress Report, prepared by Statistics Branch, OCOT, Comzone, ETOUSA, 30 Apr. 1945, Table 7.

~~RESTRICTED~~ - 248

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and then with the coming of VE-Day it fell off sharply. Thereafter port operations concentrated on outloading personnel and supplies either for operations against Japan or for shipments to the U.S.

The first of the new ports to be operated was Le Havre, which fell to Canadian forces on 12 September. Le Havre lay at the mouth of the Seine River and controlled seaway communications with the Paris region. It was the third of the major ports in western Europe which had figured in the preliminary planning for the initial operations against German-occupied France, the first being Cherbourg and the second Brest.<sup>12</sup> Brest was not captured until 20 September, and then, due to the damage inflicted by its German defenders and the changes in the tactical situation, it was not brought under Allied operation. Consequently, Le Havre, with its splendid tidal basin and its 11 miles of docks, followed Cherbourg in the succession of major ports to be operated in northern France.

Le Havre lay two miles up the Seine River where tides caused a 23-foot variation in the height of the water outside the areas enclosed by locks. Half the dock area, however, would accommodate vessels of over 25 foot draft. Before the war there also were appropriate facilities, such as cranes, warehouses and dockside railway tracks, for handling large amounts of cargo. But by September the city and port of Le Havre were among the most completely devastated areas of the war. The Germans had concentrated a large number of small war vessels and speed boats at Le Havre, which Allied bombers completely annihilated on 14-15 June. The bombers also exploded mines at the Transatlantique Mari-

History of the T.C. in the ETO, Vol. V, Part 1, Chap. III, Section I, pp. lff.

~~RESTRICTED~~ - 249

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time Station, and damaged the German submarine base at the port. During the latter part of July the Germans commenced their own systematic destruction of the port. They sank boats at important dock entranceways, blew up large sections of quays and demolished cranes, lock gates, etc. Reports based on the initial survey corps of Engineers indicated that the port was 100 percent destroyed and that the houses of the town were 70 percent destroyed. French city officials confirmed this estimate.<sup>13</sup>

The Engineer units that were assigned to the rehabilitation of the port included two general service regiments, two port reconstruction and repair groups and four other units. Operation of the port, and assistance in its rehabilitation, was assigned to the 16th Major Port, formerly operating the Brittany ports.<sup>14</sup> At that time, Brig. General W.H. Hoge was in command of the Port, but ultimately (i.e., on 31 October) Colonel T.J. Weed assumed command.<sup>15</sup> Between 21 and 30 September detachments of the 16th Port staff arrived at Le Havre and prepared to commence operations as soon as the Engineer units could clear the devastated beaches for the reception of landing craft and Dukws, remove the anti-tank and anti-personnel mines, and prepare passage ways through the debris in the streets of the town. The first LSTs carrying supplies were beached at Le Havre on 2 October; nearly three weeks after the port's capture. Additional LSTs arrived shortly thereafter, and during the first week of operation a total of 4,396 tons of cargo was dis-

<sup>13</sup> Ibid, p. 5.

<sup>14</sup> During the period 12 August to 30 September 1944, the 16th Port had discharged 57,136 long tons at the Brittany ports.

<sup>15</sup> The 16th Port was placed under the command of the Channel Base Section, whose headquarters during November was located at Lille.

~~RESTRICTED~~ - 250

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charged from this type of ft.

Meanwhile, American and British Navy units were clearing the harbor to insure anchorages for larger vessels, and early in October they had provided space for a total of 12. The rehabilitation of docks or the construction of new docks proceeded more slowly, partly because it was necessary to effect simultaneously the repair of lock gates in the inner basin. By December, however, a floating dock was placed in operation and floating piers erected by December were capable of accommodating five Liberty ships, and quayside berths were able to take two more Liberties.<sup>16</sup> The use of the inner basins was facilitated when on 30 November the gates at the entrance of the Lock Rochemont were completely rehung, enabling the first Liberty ship to pass through the lock on 16 December.

During initial phases of operation warehouse facilities became of importance because supplies were unloaded in quantities exceeding the capacity of available motor transport to remove them. Consequently, it was necessary to rehabilitate the greatly damaged warehouses in the port area, although there was little repair material available. Repairs were effected by salvaging material from wreckage and using it where most required. An almost continual downpour of rain slowed these operations considerably.

Before the war, Le Havre had boasted of a recently built special dock which was devoted exclusively to the handling of petroleum products. Damage inflicted on the city did not exempt this dock, but on 8 October the task of restoring existing facilities and constructing new ones

<sup>16</sup> Ibid, p. 11. Another report states that four concrete units were towed from the U.K. and sunk in position to serve as docks.

~~RESTRICTED~~ - 251

RESTRICTED

was exactly two week project was completed and placed in service, thus supplementing the petroleum handling facilities available at Cherbourg.

method of port clearance was by motor vehicle, for the damage to the rail network in the port area, coupled with shortages of material and equipment, led in delays in railway rehabilitation. By 12 November, however, rail lines had been sufficiently restored to permit the dispatch of the first train from Le Havre to Paris. Meanwhile, that is on 6 October, the White Ball Express truck service was inaugurated. The purpose of this service was to clear the port area by transferring tonnage to depots at Paris, Soisson and Reims. An account of the operation will be taken up later in the discussion of Motor Transport Service accomplishments.

During its first month of operation (October), the 16th Port discharged 61,731 long tons of Army cargo at Le Havre. As rehabilitation and construction work continued the discharge rate rose accordingly, and by January 1945 a peak monthly figure of 198,768 long tons was attained. For the following months, the discharge rate remained almost as high, so that by 31 May 1945 a cumulative total of 1,254,129 long tons of cargo had been discharged at Le Havre.<sup>17</sup>

To add to these cargo handling accomplishments, during January Le Havre became the principal troop debarkation and embarkation point in

<sup>17</sup> T.C. Monthly Progress Report, Statistics Branch, T.C., USFET, 31 July 1945, Table 8A. Le Havre also had become the main reception point for Civil Affairs imports. Short Report on Important Transportation Developments in the ETO, 16 June 1945, p. 6.

RESTRICTED - 252

RESTRICTED

the ETO.<sup>18</sup> Handling troops was facilitated by the use of the steel ponton pier in the outer harbor, where three deep-draft troop ships could tie up simultaneously. The Port constructed and operated the Red Horse Staging Area with separate camps capable of handling monthly 160,000 incoming troops and 5,000 troops preparing for leave or furlough in either the U.S. or the U.K. During the period from 1 January to 1 May 1945, the Port processed 885,051 incoming troops (not including leave personnel).<sup>19</sup> On 1 April 1945 what was termed Recovered Allied Military Personnel (RAMPs), or repatriated personnel, began to arrive in the staging area for evacuation to the U.S. During that month, 19,230 RAMPs were processed in the Le Havre staging areas.

Rouen might be considered the sister port of Le Havre, for it was located further up the Seine River, and was served by some of the same rail lines and highway routes that ran between Le Havre and Paris. A detachment of the 16th Port was dispatched from Le Havre, which on 10 October commenced discharge activities at Rouen, but on 20 October 11th Port personnel under Colonel R.S. Whitcomb began taking control, because it was believed that the task required a full port headquarters. As a matter of fact, the rate of discharge of Army cargo at Rouen ultimately surpassed that at Le Havre, for during March 1945 a record 268,174 long tons of cargo were landed at Rouen docks, justifying the establishment

<sup>18</sup> On 15 January the 52nd Medium Port with its complement of 75 officers and 235 enlisted men under the command of Colonel W.J. Dego, Jr., joined the 16th Port organization. Two weeks later the combined ports were relieved of their assignment to Channel Base Section, and were assigned to Normandy Base Section, whose Northern District then included the Le Havre area. History of the T.C. in the ETO, Vol. VI, Part 2, p. 116.

<sup>19</sup> Short Report on Important Transportation Developments in the ETO, p. 7.

RESTRICTED 253 -



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of separate port headquarters at the latter port

When the advance detachment of 16th Port personnel reached Rouen during the first week in October, they found the facilities in fair condition.<sup>20</sup> The quays as a whole were not damaged greatly, but sunken wrecks made them unuseable. The Germans also had destroyed all of the ports' permanent cranes. The storage space, both open and covered, was reported as excellent; only the sheds needed to be cleared of debris. Already the French and U.S. Navy and Army Engineer units were engaged in salvage and rehabilitation operations in order to reopen the port as soon as possible.

The official opening occurred on 15 October when two coasters arrived from the U.K. with a cargo of POL. By the time the 11th Port took charge, 3,047 long tons of cargo had been discharged, two thirds of which were cleared from the port by road. At that time, berthing space was available for nine ships, and it was estimated that the port was 20 percent rehabilitated.<sup>21</sup> By the end of the year rehabilitation was 75 percent completed, in terms of the port's normal capacity. Cargo discharge increased from 26,891 long tons in October to 133,609 long tons in December. In addition, from the time the port began to handle personnel shipments, 10 November, to the end of the year, 51,111 troops debarked and 829 were embarked. All of this passenger traffic was carried in and out of the port on landing craft of various kinds, or on coasters.

The 11th Port met and overcame many of the problems incidental to

<sup>20</sup> History of the T.C. in the ETO, Vol. V, Part 1, Chap. III, Section I, p. 19G.

<sup>21</sup> Ibid, p. 175. Available berthing space was increased by the installation of an English floating dock.

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operating a damaged European port, and certain problems peculiar to Rouen. The first truck convoy forwarded by the 11th Port cleared from Rouen on 20 October, but until the end of the year there was a general shortage of trucks for moving the amount of cargo available.<sup>22</sup> Some of the shortage was attributed to the great amount of time that trucks consumed making the trip to the transit area and return. Closer supervision of truck movements was instituted and the turnaround time was materially decreased. During November the three truck companies assigned to the Port were able to keep only 80 vehicles during the day and 60 at night working on dock clearance, because a large part of their time was required for housekeeping duties.

Port clearance by barges on the Seine River was delayed because of flood conditions. Beginning with 22 November, however, it was possible to dispatch loaded barges toward Paris, some carrying French civilian supplies and some U.S. Army cargo. It was reported that a lack of sufficient motor towing launches held down to 24,067 tons the amount of cargo moved up to the end of the year. Another handicap to the 11th Port was a lack of sufficient labor. Efforts to relieve this condition resulted in securing 1,000 POWs on 24 November and an additional 1,500 before the end of the following month. In addition, 17 local stevedore companies were contacted, and by 31 December they were furnished 2,000 civilian dock hands and laborers. Also, more than 400 natives were hired as clerks, interpreters and laborers on a permanent basis.

Prior to the time the 11th Port took charge of operations, the 16th Port detachment had succeeded in loading a large number of railway cars,

<sup>22</sup>

Some of the convoys leaving Rouen joined the White Ball Express service operating to . . . Paris and eastern depots until January 1945.

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but most of these had not been moved, pending further improvement in the rail lines. Many switches and rails had been damaged and had to be repaired by the Corps of Engineers. It was not until 17 December that the first connection was made with "outside" rail facilities, and even then delays continued as the result of mechanical difficulties in the old French switch engines employed, and an insufficient number of switching locomotives. Later some U.S. switch engines were brought in and relieved the situation.

Initially, the 11th Port also lacked complete information as to the time of ships arrival, and the type of cargo and vessel coming up the Seine. This difficulty was partly overcome by stationing Coast Guard Cutters at appropriate points along the river, and having their officers telephone information regarding the time of ships' passing to Naval authorities at Rouen. There also was some difficulty from breakdown of port gear and equipment, without the necessary time, troops or supplies to effect their speedy repair. One policy which contributed to more efficient port operation, however, was the division of the port into three sections, each section being operated as a unit. Improvement in the prevention of pilferage resulted from the arrival of an MP company on 13 November, and the almost simultaneous assignment of 72 additional civilian police for appropriate disposition by the 11th Port. Further protection followed the employment of patrol boats on the Seine River.

Other problems were encountered as rehabilitation work progressed and more cargo arrived monthly at the port, but on the whole these were successfully overcome. As previously indicated, the rate of cargo discharge continued to mount during 1945 to its peak in March, so that by

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1 May a cumulative total of 1,126,500 long tons of cargo, almost exactly the same as that for Le Havre, had been discharged at Rouen.

#### The Growing Importance of Antwerp

According to a SHAEF, G-4, report of 5 July 1944, it was assumed that Antwerp, Belgium, would not fall to the Allies until mid-February 1945. It also was estimated that by the following 6 March the discharge capacity of the port would amount to 3,300 tons of cargo per day.<sup>23</sup> However, the port of Antwerp was captured on 5 September 1944 and after the 55 miles of the Scheldt River extending from the coast to the port had been cleared of German troops, the first Allied cargo vessel reached the port on 26 November. During December Antwerp discharged an average of 13,092 tons of U.S. Army cargo per day. But while the benefits of securing 26 miles of dock frontage and a large amount of port facilities in a relatively undamaged port came much sooner than had been expected, the acquisition of Antwerp also produced many problems.

Before noting these problems and the manner in which they were overcome, it is appropriate to refer to certain aspects of the delay in clearing the Scheldt estuary. A previous chapter has mentioned General Eisenhower's decision to make an all out effort to secure a crossing of the lower Rhine before attempting to free the seaway approaches to Antwerp. Finding his initial attempt to cross the Rhine abortive, General Eisenhower assigned Canadian troops to the difficult task of driving the Germans from the lower Scheldt. By November the assignment had been carried out. Meanwhile, Maj. General Ross, the theater Chief of Transpor-

History of the T.C. in the ETO, Vol. V, Part 1, Chap. III, Section on 13th Major Port, p. 16.

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tation, stated that from a logistical standpoint, he regretted the delay in opening the port of Antwerp.<sup>24</sup> In addition to the docks and port facilities that Antwerp offered for discharging the large number of U.S. vessels awaiting the chance to deliver their cargo, there was the short haul of supplies to the Armies. During November it was estimated that the average round trip distance for trains supplying the First and Ninth U.S. Armies from Antwerp would be approximately 200 miles. In contrast, the mileage turnaround from Cherbourg to Liege (from which the Armies were then supplied) was 1,044 miles. The railway power and rolling stock required for every 1,000 tons of rail lift out of Normandy could effect a lift of from 2,500 to 3,000 tons out of Antwerp.

The Germans were fully aware of the value of Antwerp for meeting Allied supply requirements. Indeed, they believed that the defense of the Scheldt approach to Antwerp was the decisive factor in the further conduct of the war. Captured German documents revealed that on 7 October the German High Command feared that with the port of Antwerp in Allied possession, a deathblow might be dealt to northern Germany and Berlin before winter. German troops were urged, therefore, to defend the Scheldt blockade position at all costs.

This fact has raised speculation concerning the German failure to destroy the port facilities at Antwerp as they destroyed those at Cherbourg and Marseilles. One tenable theory is that the Germans intended to recapture the city at a later date and again employ it for handling German cargo. Whether or not this is correct, it is certain that beginning with 7 October the Germans endeavored to accomplish the ports' de-

<sup>24</sup> Personal letter to Maj.Gen. C.P. Gross from Maj.Gen. F.S. Rose, 10 Oct. 1944.

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truction by employin flying bomb and rockets. On that day the first of the deadly missiles, ultimately amounting to 4,883 V-2 and V-1 bombs, in addition to 1,712 rockets, fell on Antwerp. The siege lasted for 175 days and not only caused considerable damage in the populated areas of the city (indicated by the fact that 2,900 civilians were slain and 7,863 wounded), but in some instances, heavily damaged port facilities and caused 628 casualties among U.S. troops.<sup>25</sup>

During peacetime Antwerp was one of the world's most important harbors and at the same time it was Belgium's greatest commercial. Until the outbreak of World War II, the harbor at Antwerp in terms of vessel activity compared with Rotterdam, Hamburg and New York.<sup>26</sup> total traffic in 1937 involved the movement of 58,000,000 tons of cargo. Approximately 28,500,000 tons of this cargo were moved by sea, 11,000,000 by rail and 18,000,000 by inland waters. In addition to its 18 maritime docks and 7 barge docks which provided approximately 26 miles of dock frontage, the port possessed ample shed and storage space. There were 880 warehouses in addition to more than 238 acres of covered or open storage space. There were 625 hydraulic and electrical hoisting cranes and more than 200 acres of petroleum installations. The port also possessed 12 drydocks, the largest of which was 740 feet long.

Antwerp was amply served by rail, and more than 500 miles of double track line were located in the harbor area alone. It might be noted that most Belgian railway track was standard gauge, although there was

<sup>25</sup> A V-2 bomb fell squarely on and destroyed the largest crane in the port, a 150-ton Belgian-owned crane. On 20 January a direct hit on a warehouse caused severe damage to the building and its contents of Army cargo. Four days later a ship was hit at berth. It sank but was later raised and most of the cargo salvaged.

<sup>26</sup> History of the T.C. in the ETO, Vol. VI, Part 2, Chap. III, Section VI, pp. 74ff.

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a considerable amount of meter gauge line. The network of navigable waterways which linked Antwerp with various areas in Belgium totalled 1,370,000 miles. The most important of these water lanes was the Albert Canal extending between Antwerp and the Liege area. Ample space was available for the movement of motor vehicles at quayside, and four wide roadways led through the town.

While the port and its facilities were left relatively intact when the Germans withdrew, there was nevertheless considerable rehabilitation and repair work required before the Allies could utilize the port to its former capacity. Some of the quays and basins had to be cleared of sunken German barges and small vessels, as well as many tons of steel and barge material. Approximately 100,000 cubic yards of sand that littered the quays and covered many rail tracks and crane rails completely blocking certain berths, had to be removed.

After the port began operating, it used a considerable portion of this sand as ballast for departing vessels. Some of the quay walls had been shattered either by bombs or by German demolition charges, and it was necessary to repair most of them before they could again be employed for berthing ships. One gate at the Kruisshen Locks, the main entrance to the U.S. sector of the port from the sea, had been damaged by a German time bomb, and it was necessary to effect repairs before the basins behind it could be filled and made navigable to deep draft vessels. This repair was not completed until December 1944.

Railway tracks and transfer points in the port area required complete rehabilitation and rails removed by the Germans had to be replaced. The rehabilitation of sheds and structures was carried out, and badly

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damaged buildings along the waterfront were repaired where possible. This type of repair work continued throughout the period of buzz-bomb attacks. A considerable part of the repair and rehabilitation work was undertaken by the British under 21st Army Group supervision, although American units, particularly railway troops, assisted in some of the initial repair work. It was estimated that by the time the port was placed in operation, 38 percent of its potential berthing space had been rehabilitated. By the end of December, 87 percent of the potential berthing space was available.

An important phase of preparing the port for operation was the mine sweeping and dredging in the Scheldt River, which in some places was nearly a mile wide. Perhaps it was the size of this task that delayed the admission of the first incoming Allied cargo vessel from 15 to 26 November. Also it should not be overlooked that a large number of anti-tank and anti-personnel mines placed in the port area by the retreating Germans had to be cleared out before it was safe to commence operations in the port area.

T.C. units assisted the British in the initial survey of the port area during September, and laid plans for future operations. By 18 October an agreement was signed between the British 21st Army Group and the U.S. Comzone Headquarters, providing for a division of the inner harbor (the basins) of the port between the two countries, and a joint use of the outer harbor, that is, the docks along the river.<sup>27</sup> This agreement, subject to later amendments, assigned a large portion of the northern section of the port to the U.S. and reserved the southern sec-

<sup>27</sup> History of the T.C. in the ETO, Vol. V, Part 1, Chap. III, Section on 13th Major Port, pp. 1ff.

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tion, including the city of Antwerp, to the British. A joint British-U.S. Movements and Transportation Committee was established to plan and coordinate British and U.S. movement by road, rail and inland water transport. With the later inclusion of Belgian representatives this Committee became known as "BELMOT" (Belgian Movements Organization for Transport).<sup>28</sup> The 21 October agreement also provided that in so far as possible American cargo was to be moved direct from quayside to advance depot, and that any storage required in the port area would be of in-transit character. It was estimated that the U.S. would move approximately 22,500 tons of cargo per day, exclusive of bulk POL, to its depots in the Liege-Namur and the Luxembourg areas. The British estimated that they would move approximately 17,500 tons of cargo exclusive of bulk POL to British advance depots. Provision also was made for movement effected by Belgian civil traffic.

The port was placed under the control of a British Naval commander under whom there was to be a Port Executive Committee. This Committee would contain representatives of the British port commander and the American port commander, each having exclusive jurisdiction in his own area. It should be added that the U.S. port commander was responsible to the Commanding General, Channel Base Section, Comzone, who was to insure coordination control and administration of all U.S. forces at Antwerp.

#### Antwerp Under the 13th and 5th Ports

Available historical records are somewhat contradictory as to the

<sup>28</sup> Ibid, Vol. VI, Part 2, p. 114. The U.S. Port Area Transportation Officer accepted the allocations decided upon by BELMOT.

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American port organization at Antwerp. Despite the conflicting evidence it appears that during October the 13th Major Port, formerly operating at southern British ports, received the initial assignment to prepare for operations at Antwerp. A large portion of the port personnel reached Antwerp by train on 26 October. They were preceded by some of the personnel of the 5th Major Port, formerly operating in the Brittany sula. Eventually, the remainder of the staff of both Port headquarters arrived at Antwerp and though they were formed into one operational unit, each retained its own organization. Technically, the 5th Port was attached to the 13th Port.<sup>29</sup> The commander of this combined unit was Colonel Dosswell Gullatt, C.E., who received his appointment on 13 October. He formerly commanded the 5th Engineer Special Brigade at Omaha Beach.

The first Allied vessel to enter Antwerp contained a large detachment of port headquarters personnel and their organic equipment. vessel was followed by the arrival of many others carrying U.S. cargo for the American Armies. As previously mentioned, discharge began on 28 November, and thereafter the port was operated in high gear. Helpful to this operation was the arrangement that the American section of the port be divided into eight areas, each of which was operated as a unit.

The Port headquarters successfully secured a large amount of U.S. dock and floating equipment to supplement that which was Belgian and British owned. For example, during December the pool of floating equipment was enlarged by the addition of 17 small tugs, 6 floating cranes

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<sup>29</sup> Ibid, p. 77.

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The port headquarters at Antwerp had some difficulty in sorting incoming cargo. In part, this difficulty arose from the necessity for prompt clearance, but it also was caused by the desire of various services for particular types of commodities or particular items. Even when a ship was commodity-loaded with Q.M. Class II items, there might be some difficulty in locating the exact items required by Q.M. representatives

Antwerp followed the general pattern of European ports in being able to unload more cargo than could be moved forward promptly to dumps and railheads. For example, even before the German Ardennes offensive a sizable stock of cargo had to be placed in port storage. The rate of clearance subsequently improved, so that by the end of December, instead of storing one ton for every two tons of cargo discharged, there was an excess of forwardings over tonnages discharged. During the first five days of December, clearance by motor vehicles was double that by railway cars. Railway operations from Antwerp initially were handicapped by shortages in rolling stock, but after mid-December rail loads regularly topped those carried by other means of transportation from the port, and the average number of railway cars loaded rose from 160 per day to over 350 per day. For the entire month of December rail clearance covered 44 percent of all tonnage cleared, against 40 percent for motor transport. The inland waterways accounted for the remainder.

It should be noted that road clearance from Antwerp was directly connected with the establishment, on 28 November, of the ABC Express motor service. The name for this special motor haul was taken from the initials of the American, British and Canadian Armies, each of which received some of the cargo hauled. The operation of this service, in

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which the U.S. Army controlled all routes allocated primarily for U.S. traffic, while routes used jointly with the British or the Canadians were jointly controlled under senior British authority, will be described in connection with Motor Transport Service activities.

The British had planned to open the Albert Canal to Liege by 15 December, but they were delayed in removing one of the destroyed bridges at the entrance to the Canal. In order to commence barge operations as quickly as possible, however, the OCOT developed a plan for the movement of barges over an alternate route to Liege, that is by way of Charleroi. Consequently, from 30 November until 23 December barges were moved the long way around to Liege. By the time the Albert Canal was opened, the Battle of the Bulge was on, and ADSEC, Comzone, placed an embargo on further movement of barge cargo. By 31 December the embargo had immobilized 202 loaded barges.

The German counteroffensive of mid-December also affected Antwerp's discharge and movement capacities because it held up the movement of trains. The principal reason for this delay was that not only barges but railway rolling stock were used as movable warehouses. Approximately 35,000 railway cars were loaded and left behind the depots threatened by the German drive, so that few empty cars were available for loading at Antwerp. As a further handicap in railway operations, trains moving from Antwerp to the forward areas frequently were strafed by enemy planes.

Special care also had to be taken against sabotage and German paratroopers. These precautions were required during a period of severe winter weather, so that train guards had a difficult assignment. It might

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be added, however, that their work was not as arduous as that of the truck drivers who had to haul cargo through fog and snow along icy roads.

During the short last week in November that brought the beginning of port operations, a total of 5,873 long tons of U.S. Army cargo was discharged at Antwerp. For the entire month of December the impressive total of 427,592 long tons of cargo were taken off U.S. vessels at Antwerp docks. This extensive contribution to the supply of American Armies conceivably would have been greater had port clearance not been adversely affected by the German counteroffensive. On the other hand, the counteroffensive alone does not seem to have been responsible for keeping down the total. It had been estimated that Antwerp could operate most efficiently with 60 vessels at berth each day, yet for various reasons this number was not maintained during December. The reasons undoubtedly included a reluctance to bring too many ships into Antwerp until the outcome of the German drive could be determined, and also until port clearance facilities could be increased. In any case, the number of vessels working daily during December never exceeded 56 and at times was as low as 30. It should be noted that this situation developed at a time when there was a large backlog of vessels in European waters awaiting assignment to berth, and so could not be attributed to a lack of shipping.

During 1945, with the cessation of the threat from the German Ardennes offensive, the continued advance in the rehabilitation of Antwerp, the addition of harbor craft and port equipment and the release of barges and railway cars for port clearance brought steady progress in the rates

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of discharge a port clearance.<sup>30</sup> The following tabulation records the amount of cargo discharged at Antwerp and the amount cleared from the port by motor, rail and barge for the first three months of 1945:

MONTHLY DISCHARGE AND PORT CLEARANCE RATE AT ANTWERP,  
January-March 1945  
(Long Tons)

	<u>Cargo Discharged</u>	<u>Cleared from Port by</u>			<u>Total</u>
		<u>Rail</u>	<u>Road</u>	<u>Barge</u>	
January 1945	433,094	238,518	120,799	41,616	400,933
February	473,463	306,036	169,469	57,868	533,373
March	558,066	302,018	184,169	74,020	560,207

Operating the Port of Ghent

During January 1945 the Belgian port of Ghent, located within the area of the British 21st Army Group, was opened under the joint operation of the British and the Americans.<sup>31</sup> The port had not handled general cargo for the five previous years, having been used by the Germans only for barge traffic in sand, gravel and bulk steel. Most of the cranes had been dismantled, and those remaining had received practically no maintenance. No dredging had been accomplished while the port was in use by the Germans and many high silted spots existed in the harbor. Extensive work was required, therefore, in the rehabilitation and development of the port..

The 17th Major Port and attached units arrived at Ghent on 15 January, and a week later (23 January) began discharging the first U.S. cargo ship. During the month of January, 15,742 long tons of cargo were discharged. A steady increase in rate for the succeeding months culmi-

<sup>30</sup> History of the T.C. in ETO, Vol. VI, Part II, pp. 73ff.

<sup>31</sup> Short Report on Important Transportation Developments in the ETO, p. 5.

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nated in a peak discharge of 277,553 tons of Army cargo during April 1945. By 31 May the port had discharged a total of 793,456 tons of Army cargo. Meanwhile, on 22 April 1945, the U.S. 17th Port was given complete control of port operations, except for several berths which were retained for British discharge of civil affairs cargo.

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## XI. LOGISTICAL SUPPORT FROM SOUTHERN FRANCE

While the First and Third U.S. Armies were driving toward the German border in the summer of 1944, the Allies undertook the long delayed invasion of southern France. On 15 August (D plus 70 of the Normandy assault) the Seventh U.S. Army and units that later became the First French Army successfully landed on the Riviera beaches, captured Marseilles and several smaller ports, and moved rapidly northward to form a juncture with the Third Army. Thus a new route was inaugurated for the movement of reinforcements and supplies, particularly to the American Armies fighting before the Siegfried Line. The route was not established in time to support the momentum of the eastward drive that followed the St. Lo breakthrough, but it was tremendously helpful in later operations. In fact, it would be difficult to overemphasize the importance to the Allied cause of the communications extending northward from Marseilles. Support for this view may be found in statistics for the discharge of personnel and cargo in southern France.

Within six weeks of the landing date, 380,000 troops, 306,000 long tons of general cargo, 69,312 vehicles and 17,848 long tons of bulk gasoline had been moved across the assault beaches.<sup>1</sup> Meanwhile, the ports of Marseilles, Toulon and Port de Bouc had been opened to discharge, and during the month of September (Marseilles did not commence discharge of Army cargo until 8 September), 146,297 long tons of cargo and 122,263 persons were discharged at southern French ports.<sup>2</sup> During the following month personnel debarkation at the ports increased slightly and dis-

<sup>1</sup> Historical Record, OCT (U.S.), AFHQ-NATOUA, July-Sept. 1944, p. 2. The beaches were closed out in September.

<sup>2</sup> History of the 6th Port, Vol. V (July-Oct. 1944), Exhibits F and I.

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charge of cargo rose to 404,365 long tons. Further monthly increases helped to account for a total of 939,450 personnel, 4,726,188 long tons of cargo, and 177,078 vehicles discharged at Marseilles and its satellite ports by July 1945.<sup>3</sup> By way of comparison, it may be noted that these ports discharged more U.S. Army cargo and vehicles than any single European Atlantic port, and debarked more troops than any such port save one (Le Havre), in the period prior to July 1945.

These accomplishments, coupled with the ability to "deliver the goods" in the forward areas, indicate that without the logistical support of southern France, the ultimate success of the Allies Armies in Europe might have been considerably delayed. Most of the support was provided for the Seventh U.S. Army and the First French Army, both of which on 15 September 1944 were placed under the control of the Sixth Army Group (later redesignated the Southern Group of Armies), but on occasions units of the Twelfth Army Group (later redesignated the Central Group of Armies) also received some support from the south.

As previously explained, planning for the invasion of southern France was subject to a number of changes, including what became a temporary decision to abandon the entire project. At the Casablanca Conference in January 1943, it was first decided to launch an assault along the Riviera simultaneously with the assault on western France.<sup>4</sup>

By the time of the Quebec Conference (August 1943) when the draft plans

<sup>3</sup> Port de Bouc was used primarily for the discharge of bulk POL products and Toulon was used principally by the U.S. Navy or the French government. Nice received only negligible shipments of U.S. Army cargo.

<sup>4</sup> Report of Operations in Northwest Europe by General of the Army D.D. Eisenhower, p. 11ff. (The revised edition of this report is the Report by the Supreme Allied Commander to the Combined Chiefs of Staff on the Operations in Europe of the Allied Expeditionary Force.)

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for Overlord were approved, the Combined Chiefs of Staff also approved planning for an offensive operation in southern France, to be designated Anvil, in which U.S. and French troops would participate. The operation was to establish a lodgment in the Toulon-Marseilles area and "to exploit northward in order to create a diversion in connection with Overlord."<sup>5</sup> At the same time it was believed that if possible an airborne operation also should be initiated in southern France.

By December 1943 plans were laid to launch a two division assault against the area between Toulon and Nice, and secure an eventual buildup of a force of 450,000 troops. The planning was conducted by a special group, Task Force 163, working in Algiers under the Supreme Allied Commander in the North African (NATOUSA), later the Mediterranean Theater of Operations (MTOUSA).<sup>6</sup> After General Eisenhower's transfer to become head of SHAEF, this commander was General Sir H. Maitland-Wilson. The tactical command of the operation was jointly exercised by Vice Admiral H.K. Hewitt (Naval Forces), Maj. General A.M. Patch (Ground Forces) and Brig. General G.P. Saville (Air Forces). The planners were assisted by appropriate branches of Allied Force Headquarters (AFHQ), particularly the Office of the Chief of Transportation (U.S.), AFHQ, NATOUSA, and on the strictly American side by Headquarters, NATOUSA, and Headquarters, SOS, NATOUSA.

The first setback in the planning occurred on 23 January 1944, when General Eisenhower reported to the Combined Chiefs of Staff that the Allies did not have sufficient available landing craft to launch concur-

<sup>5</sup> General Marshall's Report on the Winning of the War in Europe and the Pacific, p. 18.

<sup>6</sup> Supplying the Combat Soldier, prepared by Hqs., Communications Zone, ETO, Section II (pages unnumbered).

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rently a seven division assault in northern France and a two division assault in southern France. This report did not agree with CCS calculations, but after an exchange of views General Eisenhower's position was accepted, and on 24 March the Anvil operation was postponed until 10

Probably because General Maitland-Wilson, SAC, in the Mediterranean areas and the British Chiefs of Staff in London desired to abandon all plans for the Anvil operation, many American officers believed it as good as dead. In fact, when during the following May renewed consideration was given to an Allied landing in southern France, the operation received a new code name, Dragoon.

Meanwhile, that is before January 1944, preliminary supply planning for Anvil had become well advanced in the North African Theater. The SOS, NATOUSA, had begun to place requisitions for supplies and equipment for Anvil on the U.S.<sup>7</sup> For example, Project TC-3-44, covering T.C. supplies and equipment for the invasion and subsequent port operations had been approved early in January 1944.<sup>8</sup> Supplies and equipment for Military Railway Service operations in southern France, and for other services, when not available in local stocks, also were requisitioned from the U.S.<sup>9</sup> What has been termed "a large portion of the supplies" was received in the theater before plans for the invasion were changed on 24 March, and further evidence that the entire operation would be called off, is found in the 14 April order cancelling further shipments from the U.S.<sup>10</sup> Material already received was held in theater stockpiles,

<sup>7</sup> Supplying the Combat Soldier, op.cit.

<sup>8</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 20.

<sup>9</sup> Most of the combat and service troops for Anvil were to be obtained from units already in the theater.

<sup>10</sup> Supplying the Combat Soldier, op.cit.

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fortunately available when planning was resumed.

An interesting feature of the initial supply planning was associated with the request for "flatted" cargo vessels from the U.S. Because extensive combat operations in Italy placed heavy demands on supply facilities in the western Mediterranean, and available port and personnel capacities would not permit all the necessary pre-invasion preparations that had accompanied fulfillment of the Bolero program in the U.K., the SOS, NATOUSA called upon the U.S. to bottom load 100 vessels, principally with rations and ammunition, to constitute a floating reserve for the first 60 days of the invasion. These ships would also carry additional cargo to the Mediterranean, but this cargo would be unloaded and only the bottom cargo, flatted over with boards, would be left in the holds of the vessels. The theater then would use the temporary flooring as a base on which to store vehicles intended for discharge in southern France. In other words, the vessels would be used as Motor Transport Vessels, to use the term applied in northern Europe, but would serve the additional purpose of providing readily available supplies of rations and ammunition. After Dragoon planning began, about 60 such vessels were employed in preparing for the invasion.

During May 1944 there were indications that preparations for the invasion of southern France might be resumed, and later the Dragoon operation was approved with a target date of 15 August. Task Force 163 resumed its planning activities, and on 14 June released phased requisitions to the base sections. The base sections then began packing, marking and waterproofing supplies.

In effect, the preparatory period was quite short. The Dragoon op-

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ration was the largest that the Allies had undertaken in the Mediterranean area. The Naval force was equal in size to that which supported the U.S. landings in Normandy - approximately 125,000 Naval personnel took part in each operation. According to Navy reports there were 880 ships and craft assigned to the assault, and 1,370 shipborne landing craft were employed.<sup>11</sup> This force included 515 U.S., 283 British, 12 French, 7 Greek naval ships and landing craft, and 63 merchant ships of various nationalities. The D-Day assault troops comprised four divisions, and a total of 11 were employed in the entire operation.

Loading the force had to be effected in widely separated ports responsible to different base sections within the jurisdiction of SOS, NATOUSA. More than half the vessels for the assault and follow-up convoys to 31 August loaded at the busy port of Naples (the principal port of discharge for reinforcements and supplies destined for the 5th Army fighting in Italy), and the rest loaded in Taranto (southern Italy), Corsica and Oran, Algeria.<sup>12</sup>

Naples, which was operated by the 8th Mobile Port under the Peninsular Base Section, NATOUSA, was forced to cut drastically her discharge program while mounting its share of the Dragoon assault force. A special Group Headquarters was established with personnel drawn from the 10th Port Headquarters, to supervise, under the Transportation Section, Peninsular Base Section (PBS), all concentration areas for Dragoon

<sup>11</sup> Report of Fleet Admiral E.J. King to the Secretary of the Navy for Operations for the period 1 Mar. 1944-1 Mar. 1945, p. 48. A theater report states that there were 438 ships and landing craft. Historical Report, OCT (U.S.), AFHQ-NATOUSA, July-Sept. 1944, p. 13.

<sup>12</sup> Most of the follow-up convoys were loaded at Naples and Oran, and sailed for southern France in five day intervals.

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troops and all loading.<sup>13</sup> A prestowage section also operated under the Transportation Section, PBS. The 7th Army furnished a priority list for use in preparing loading plans. Working in harmony with the Group Headquarters, the prestowage unit planned the stowage of 7th Army cargo, and sent the prestowage lists to the Group for effecting the actual loading. Somewhat similar developments occurred at the other Mediterranean ports, in which Dragoon forces were mounted and from which they received reinforcements.

It is evident that with the distance between ports and the difficulties of transshipping cargo between them, due to the lack of available coasters, each port had to be certain to load all of its own cargo on the vessels allotted to it in other words, it was not easy to shift an overload to another port, or to effect last minute changes in loading plans based on changes in the troop list. The careful coordination of loading plans by the Planning Group, Office of the Chief of Transportation (U.S.), AFHQ, and Headquarters, SOS, NATOUSA, kept loading difficulties at a minimum.

The first flight of cargo vessels began loading at Naples approximately 15 July, and by 1 August outloading was progressing with great vigor.<sup>14</sup> Available theater reports have not included the amount of cargo and troops loaded prior to D-Day,<sup>15</sup> but up to the end of August 1944,

<sup>13</sup> U.S. Army Transportation and the Italian Campaign, op.cit., pp. 76ff.

<sup>14</sup> On 9 August the embarkation of the U.S. assault forces, that is, the 3rd, 36th and 45th Infantry Divisions, commenced at Naples. Invasion of Southern France, Report of the Naval Commander, Western Task Force, p. 37.

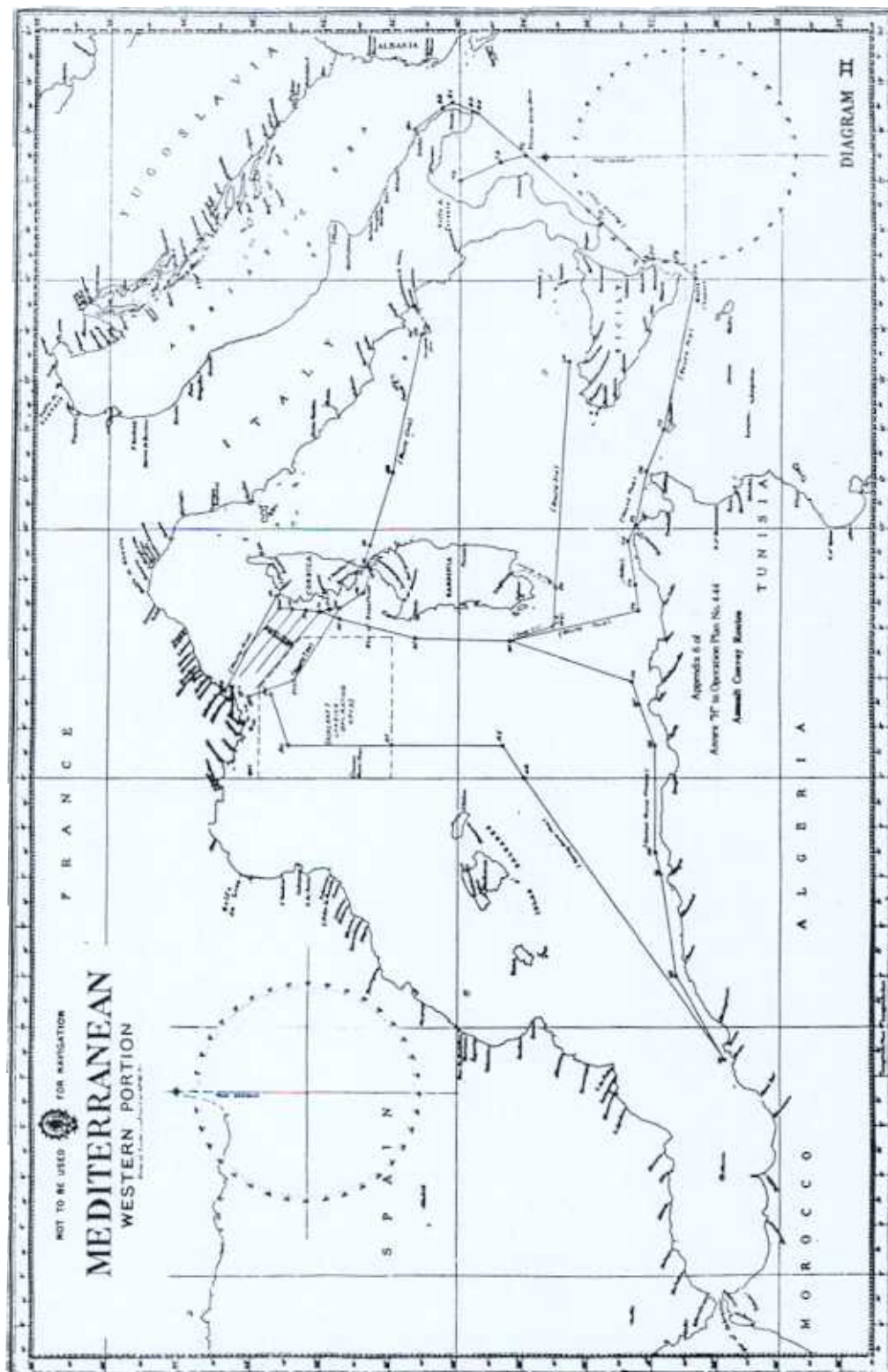
<sup>15</sup> One report mentions the allocation for D-Day of sufficient vessels to lift 151,000 personnel, together with their organizational equipment and 21,500 vehicles. Historical Record, OCT (U.S.), AFHQ-NATOUSA, July-Sept. 1944, p. 13.

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# Assault Convoy Routes to Southern France

AUGUST 1944



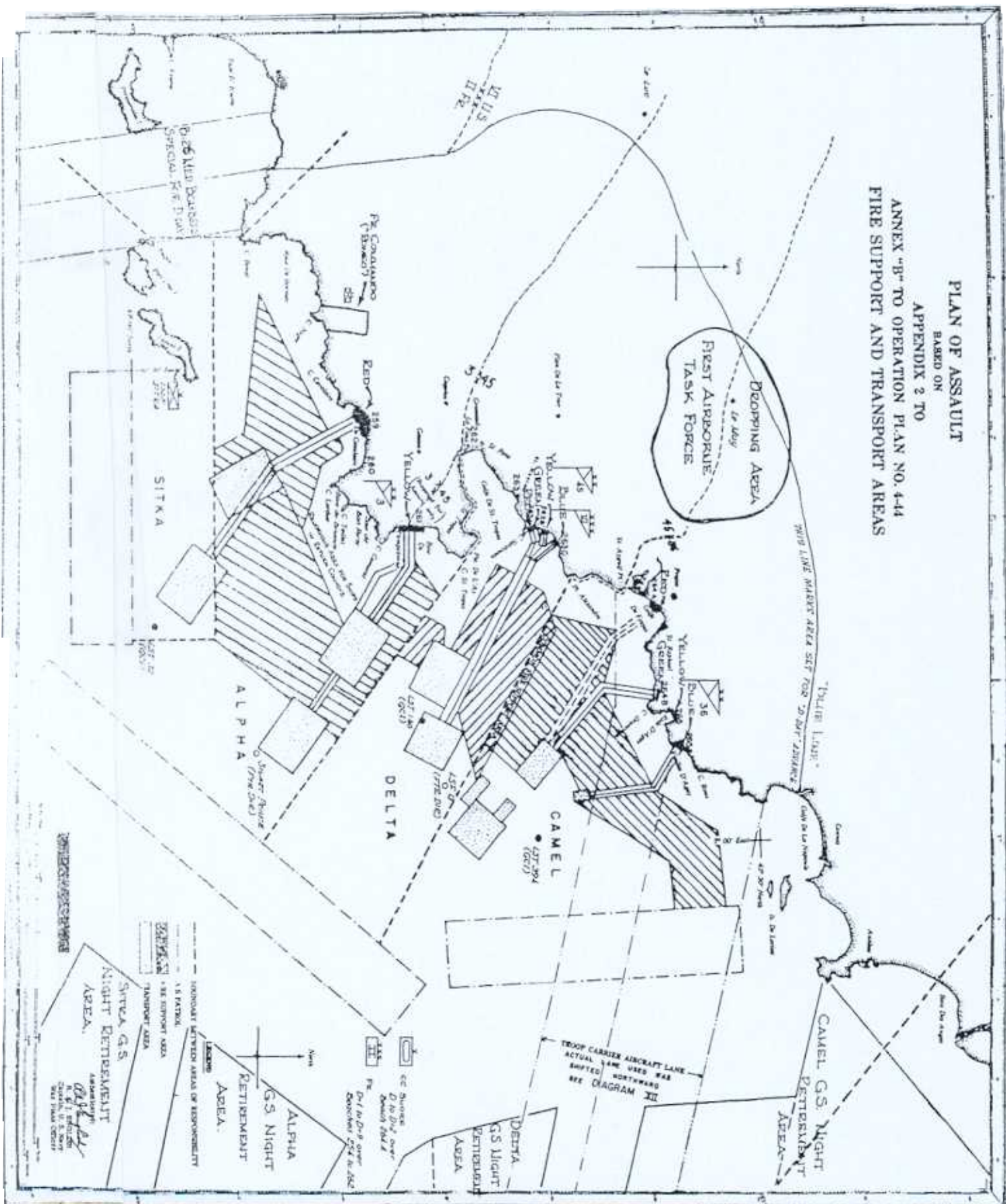
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# ASSAULT AREA ....

## PLAN OF ASSAULT BASED ON APPENDIX 2 TO ANNEX "B" TO OPERATION PLAN NO. 4-14 FIRE SUPPORT AND TRANSPORT AREAS



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D-Day and follow-up convoys loaded at Mediterranean ports carried the following totals of troops and vehicles:<sup>16</sup>

	<u>Personnel</u>	<u>Vehicles</u>
Ex Naples	144,212	22,543
Ex Oran	29,484	7,345
Ex Corsica	48,633	9,364
Ex Taranto	30,051	4,535

The Landings in Southern France

On 9 August the first section of the assault convoy left Naples and other sections followed from other ports to reach the assault area by 15 August. As previously mentioned, the assault force consisted of four divisions, the veterans of the U.S. 3rd, 36th and 45th Infantry Divisions, drawn from the 5th Army, and the 1st French Armored Division, together with a Special Service Force and French Commandos.<sup>17</sup> The U.S. divisions operated under the VI U.S. Corps commanded by Lt. General L.K. Truscott, Jr. H-Hour was set at 0800 for three beaches, located at Cavalier Bay, St. Tropez and San Raphael, extending over a 15-mile area.

Preparations for the assault landing had included intense bombing by the Mediterranean Allied Strategic Air Force, against German-held bridges, tunnels, viaducts and railroad yards. Bombing had started on 29 April and was stepped up to great intensity during the four days preceding D-Day. Particularly heavy bombing occurred from just prior to dawn of 15 August until just before H-Hour, and during the latter period was accompanied by Naval gunfire and rocket fire, which appeared to para-

<sup>16</sup> Ibid, p. 14. The Historical Record also notes that during the same period, 175,000 long tons of supplies were discharged on southern France beaches.

<sup>17</sup> Report of Fleet Admiral E.J. King, op.cit., p. 49.

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lyze the enemy forces.

On the evening of 14 August the Air Forces had made a drop of the 1st Airborne Task Force, composed of British, American and French units, astride the Argeus River, west of St. Raphael.<sup>18</sup> This airborne unit succeeded in blocking an important road behind the German coastal defenders. Furthermore, about midnight before H-Hour, French Commandos and units of the First Special Service Force landed from ships on the Hyeres Islands, southwest of the mainland assault beaches, and seized them against practically no opposition.<sup>19</sup> Meanwhile, diversionary groups were operating to the eastward in the Nice-Cannes area, and to the westward between Toulon and Marseilles, where a mock landing and repulse were staged at La Ciotat, producing considerable enemy reaction.<sup>20</sup>

The landings of the main assault forces at the three beaches designated Alpha (Cavalier Bay), Delta (St. Tropez) and Camel (San Raphael) were carried out against weak opposition. The German 19th Army, which was responsible for the defense of southern France, had allotted only two divisions to defend the 100 mile coast line from Toulon to Nice.<sup>21</sup> In the 15-mile stretch of the assault beaches were stationed only two enemy regiments and one half of these troops were conscripts from German dominated countries. Consequently, German resistance was soon overcome, and with the help of the French Forces of the Interior, the invading

<sup>18</sup> General G.C. Marshall's Report on the Winning of the War, p. 35. The decision to employ the air drop was not revealed until 15 July. Supplying the Combat Soldier, op.cit.

<sup>19</sup> Report of Fleet Admiral E.J. King, op.cit., p. 48.

<sup>20</sup> Ibid.

<sup>21</sup> The World at War, 1939-1944, A Brief History of World War II, p. 307.

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forces captured large numbers of prisoners.<sup>22</sup>

The French and the main body of U.S. troops then moved westward, the French to seize the ports of Toulon and Marseilles, and the Americans to drive for the Rhone Valley. At the same time a Special Task Force of the 36th U.S. Division headed directly north of the beaches and by 25 August (D plus 10) had seized Grenoble.<sup>23</sup> This force then turned west to cut off the German columns retreating before the American forces advancing along the Rhone River. By 3 September Lyon was captured and elements of the victorious 7th U.S. and 1st French Armies joined patrols of the 3rd U.S. Army on 11 September near Dijon.

Meanwhile, discharge of troops and cargo continued at the beaches, and the southern French ports had fallen to the Allies. Beach operations initially were handled by the Shore Group Headquarters formed from the 36th, 40th and 540th Engineer Combat Regiments, located respectively at Alpha, Delta and Camel beaches.<sup>24</sup> Each regiment was supported by various service units including a port battalion. These Headquarters continued operations at the beaches until the early part of September, when the Engineers were needed in the forward areas. Therefore a detachment of the 6th Mobile Port, under the command of Colonel R.H. Clarkson, arrived to take charge of beach operations, relying chiefly on the personnel of available port battalion headquarters

The 6th Mobile Port formerly had operated at Casablanca and then Naples before becoming assigned to take over port operations at Marseilles.

<sup>22</sup> General Marshall declares that by 18 August the beachheads were firmly established. General G.C. Marshall's Report on the Winning of the War, op.cit., p. 37.

<sup>23</sup> Ibid.

<sup>24</sup> History of the 6th Port Hqs., Vol. V, p. 3.

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It was due to the fact that most of the Port headquarters personnel was required to prepare for forthcoming discharge of cargo and personnel at Marseilles that only a small detachment could be assigned to take over from the Shore Group at the beaches. In view of this personnel limitation each port battalion headquarters temporarily was made responsible, under the 6th Port, for operations at the beach to which it was assigned. The change-over was facilitated by temporarily infiltrating port battalion personnel into each Engineer Regimental headquarters, which were later withdrawn for assignment elsewhere.

For instance, on 5 September personnel of the 360th Port Battalion combined with personnel of the 40th Engineer Combat Regiment, and on 9 September the Regiment was released from further responsibility at Delta Beach. At Camel Beach the combined groups worked together longer, but for all the beaches operations ended during the month. The last to close was Camel Beach, which finished unloading its last vessel on 28 September. By the following day all the beaches were cleared and the 6th Port made arrangements with the Navy to move the floating equipment forward. On the same day 6th Port responsibility for the beaches ended, and the Continental Base Section took control. The total discharge accomplishments at the beaches have been given above and need not be repeated,<sup>25</sup> but it should be added that owing to "the widespread area of activity and attendant confusion of the original and subsequent beach operations, a considerable amount of (T.C.) supplies was scattered about and not recovered."<sup>26</sup>

<sup>25</sup> It is worth noting that because of the rapid advance of the combat forces, troops were discharged in greater numbers than planned, and cargo discharge was less than planned. Cf. Supplying the Combat Soldier, op.cit.

<sup>26</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 21.

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Rehabilitating and Operating the Port of Marseilles

The westward thrust of the Allied Armies from the landing beaches caused them to pursue the German forces beyond Toulon and even Marseilles without awaiting the capture of those cities. The first port obtained in southern France was Port de Bouc, which fell to the French patriots on 22 August. According to one historical account the Allied advance had been so rapid and the German surrender effected so quickly that Port de Bouc suffered comparatively little damage from German demolition.<sup>27</sup> Destruction was sufficiently severe, however, to prevent the immediate use of the port for discharge of Allied cargo. Shortly after the fall of de Bouc, that is on 28 August, the German garrison at Marseilles surrendered to the French invading forces, and on the same day the Germans at Toulon also capitulated. During the planning period it was expected that Marseilles would be captured on D plus 30, whereas actually the German surrender occurred on D plus 13. Marseilles was potentially the most important of these three ports, but it had suffered severe damage, so that North African theater authorities became concerned over how rapidly and to what extent it could be prepared to receive Allied military reinforcements and supplies.

Before the war Marseilles had been the principal port of France and the largest in the Mediterranean, having both a large passenger and merchandise traffic.<sup>28</sup> During its last peacetime year of 1939 it had unloaded a peak figure of 4,280,800 tons of cargo. The port was sheltered by a detached breakwater about three miles long, parallel with and 600 yards from the shore. This breakwater provided two entrances. The north-

<sup>27</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 4.

<sup>28</sup> History of the 6th Port, Vol. V, p. 16.

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er entrance gave access to the principal basin and was used by the larger ships. The southern entrance provided ready access to the Old Port (Vieux Port), one of the basins, and an area where, similar to the area reached from the northern entrance, a large number of vessels could anchor. The only disadvantage of the port was that during unseasonable weather, rough water at the harbor entrances created hazards to naviga-

The port was supplied with an ample number of cranes (250 electric or hydraulic cranes) for discharging cargo from vessels which docked at any of its 121 berths. It also possessed a large number of quayside railway tracks. Before the war, it was not customary to discharge cargo directly into trucks or railway cars, but trucks were loaded from the transit sheds. One pier contained a passenger station which enabled passengers to debark at first floor level and pass by covered ways to the railway station. There were a number of bridges connecting various sections of the port, and a transporter bridge across the entrance to the Old Port.<sup>29</sup> An ample supply of dock labor had been available in

with nearly ten thousand laborers registered although approximately 6,000 were customarily at work at any one time.

In their long retreat from El Alamein, the Germans had developed fiendish methods of destruction, as the 6th Port which had operated at the ravaged port of Naples had ample cause to know. According to a 6th Port report, Marseilles was the German masterpiece, being more completely devastated than Naples. The only favorable factor was that due to

<sup>29</sup> Destruction of these bridges provided the Germans with an opportunity to delay Allied use of the port, an opportunity of which they took full advantage.

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the efforts of the French resistance group and the speed with which the Allied invaders closed in on the Germans, Marseilles was not deprived either of electricity or water as Naples had been. The fortunate survival of these services, however, was overshadowed by the destruction of transportation facilities which the Germans had accomplished. All warehouses were blasted into junk; cranes were wrecked and tumbled into the water; railway tracks were uprooted; every ship's berth was filled with a tangled limbo of sunken tugs, barges and fishing boats; moles, jetties and docks were dynamited. Of the bridges within the port, none was left serviceable. The operating ~~machinery~~ for the bridge across the drydock basin was completely wrecked. The road and rail entranceways to the port and the piers were cluttered with rubble, steel and heaps of ruins.

German destructive techniques in the harbor presented tremendous new problems to Allied naval and engineer units. The enemy's thorough job of blocking the harbor entrances, included techniques not previously encountered. Instead of sinking ships crosswise of entry channels as had been done at Naples, at Marseilles the Germans sank ships not only athwart but parallel to the axis in the channel, ship on top of ship. In one instance four ships were sunk side by side lengthwise of the channel, completely filling it. In another nearby channel, three ships had been sunk, staggered parallel. Elsewhere, as in the basins, ships were sunk parallel to the entrance axis from one end to the other. All told, 75 large ships of 200,000 tons burden lay on the bottom of the harbor, blocking all possible entrances.

In addition to this destruction, there were many unexploded charges located along the quays, and hundreds of mines deposited in the harbor.

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Explosives had been placed beneath the surface and back from the edge of quays to blow the stone masonry out into the berths, and leave large semi-circular craters. These quay walls presented the first problems of construction. Bulldozers could not be used for filling the gaping holes with rubble, since the rubble would merely settle into the harbor. A supporting wall had to be built before any filling commenced.

A survey of the rehabilitation task was undertaken promptly after the city's capture by representatives of the U.S. Navy salvage force, the 8th Fleet, the Army Engineers, the Royal Navy salvage force and the 6th Port. After this survey it was believed that at least two weeks would be required before Liberty ships could berth alongside a dock. The 36th Combat Engineers hoped to shorten the period, but the estimate proved to be substantially correct.

The 36th Engineers had been assigned to de-mine the land areas of the entire port, unload three port repair ships and accomplish initial dock repairs. They immediately set to work, and in the course of their efforts removed 360 unexploded quay wall demolition charges, in addition to more than 5,000 mines of the 17 types found in the port and adjacent areas. The extent of the danger may be judged by the fact that 39 persons suffered casualties while handling mines.

The Engineers were assisted in the rehabilitation task by Navy construction battalions. At the same time the U.S. Navy mine sweepers undertook to clear the harbor of floating mines. Salvage efforts were begun simultaneously to open both the northern and the southern entrances to the harbor, which received the first Liberty ship on 8 September.<sup>30</sup>

<sup>30</sup> History of the 6th Port, Vol. V, p. 10.

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On the day that this vessel was brought in, the 6th Port Headquarter operating under the Coastal Base Section (later the Continental Base Section), took over control of cargo discharge from the 36th Engineers. The port had arrived at Marseilles on 1 September, thus providing it with a week in which to prepare for carrying out its assign-

On the first day of operations, 1,219 tons of cargo were unloaded. Unfortunately, it was not yet possible to utilize any of the berths which had been available prior to German destruction of the port. However, it might be noted that within six weeks, the Engineers had made 45 available for use, and later others were rehabilitated.

A considerable amount of cargo discharge during the early days of operation at Marseilles was effected at the beaches in the northern section of the port. A total of three beaches was employed, and one of them, called Martin Beach, continued in operation well into the spring of 1945. These beaches served for the discharge of cargo and vehicles, as well as personnel from landing craft and Dukws. Statistics in theater historical reports cover only the debarkation of personnel at one of the beaches during September, but for the last two weeks of that month, which were the first that the beach was utilized, 37,000 troops were discharged from a total of 84 landing craft, transports and combat loaded vessels.<sup>31</sup>

Meanwhile, the Engineers had prepared berthing space for one Liberty and one coaster by 15 September. On that day the first ship, a Liberty, docked and commenced to discharge its cargo. By 18 September six more Liberty berths were available and within another three days a total

<sup>31</sup> Ibid, Exhibit H.

RESTRICTED - 285 -

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of eight Liberty and three coaster berths had been rehabilitated. Facilities continued to be put in shape so rapidly that by the end of September there were 15 Liberty, 5 "half" Liberty and 5 coaster berths available at Marseilles.<sup>32</sup>

During the last week in September, the 6th Port discharged at Marseilles, Toulon and Port de Bouc an average of approximately 5,000 tons of general cargo per day.<sup>33</sup> A factor in this discharge record was the rapid acquisition of cranes to replace those destroyed by the Nazis. The 6th Port had brought along four large cranes plus a 60-ton floating crane from Naples. To these were added cranes used at the invasion beaches and repaired French cranes, so that by October there were 39 cranes in use in the port and harbor of Marseilles.

Early in October the prompt clearance of cargo had become quite a problem at the port. As a means of easing this problem, railway and highway activities at the port were consolidated under the Port Clearance Section of the 6th Port, and to insure coordination between truck clearance at the port and delivery of cargo to the Armies, on 3 October Col. R.H. Clarkson was appointed Transportation Officer of the (then) Delta Base Section. On 20 September the truck strength of the Communications Zone, NATOUSA, was principally concentrated in the Marseilles area. There were 18 Q.M. truck companies in operation, of which six were equipped with Dukws. Incidentally, there also was an Italian POW truck battalion engaged in hauling ammunition from the beaches. A month later

<sup>32</sup> Historical Record, OCT (U.S.), AFHQ-NATOUSA, July-Sept. 1944, p. 30.

<sup>33</sup> History of the 6th Port, Vol. V, p. 13. The theater Chief of Transportation, however, reports that the rate was 8,000 tons per day, but the figure cited in the text above appears to be the more reliable. Historical Record, OCT (U.S.), op.cit., p. 30.

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the truck strength at Marseilles had been greatly increased in order to meet the growing needs of port clearance and the demands of over-the-road deliveries. At that time there were eight regular Q.M. truck companies, 10 truck companies activated from former anti-aircraft units, 10 Italian Q.M. truck companies, 5 French truck groups and a civilian driver pool for the use of 213 Army vehicles and 131 civilian vehicles.<sup>34</sup> The total vehicle strength of these companies was 2,535. The deadlining of vehicles, however, brought the working strength down to only 1,670 vehicles. The deadline rates were 30 percent for U.S. truck companies and 40 percent for French companies.

During October, every available vehicle was pressed into service in clearing the port of cargo. Even horses and wagons were used, but the backpiling increased to a dangerous point. During the first week in October it became necessary to embargo additional sailings to Marseilles from Italian and North African ports because of the confused shipping conditions at Marseilles and the piling up of a backlog of cargo. Another measure intended to increase the amount of cargo moved out of the port area was adopted on 10 October, when the Communications Zone Headquarters prohibited further long hauls of cargo by truck unless absolutely required. This policy was possible because by that time the rail lines running north of Marseilles were able to carry an ever increasing amount of freight.

Rail operations in southern France had begun on 24 August,<sup>35</sup> when

<sup>34</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 23.

<sup>35</sup> Four locomotives, six gasoline tank cars and a limited amount of rolling stock were captured by D plus 10. Historical Record, OCT (U.S.), AFHQ-NATOUA, July-Sept. 1944, Appendix N.

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the meter gauge line began running forward from the beaches, but rail operations at Marseilles did not begin until later. The destruction of railway facilities had been so severe as to prevent quick use of trackage in the port. However, an excellent yard was available at a nearby station, the Gare Canet, and initially nearly all rail loading occurred at that point. Fortunately, also, the railroad roundhouses at Marseilles had been relatively undamaged, and a total of 30 locomotives with approximately 450 railway cars were found serviceable there.<sup>36</sup> Moreover, a sufficient amount of coal was located for the initial operation of trains. By the end of September the capacity of the rail line from Marseilles to the forward areas was approximately 5,000 tons per day. The development of railway operations had permitted the inauguration on 26 September of a priority board for bidding on rail tonnage.

The rapid rehabilitation of railway lines was accompanied by the fortunate discovery that tracks running north of Marseilles had not been as severely damaged as had been expected. In fact they were in such satisfactory shape that requests upon the U.S. for additional track material were cancelled, and some of the trackage available in theater depots was declared surplus and turned over, under lend-lease, to the French railroads in North Africa. However, the railway locomotive situation became critical. In addition to the French locomotives that had been discovered intact, by the end of September the U.S. had delivered to Marseilles 10 Diesel locomotives and two 2-8-0 locomotives.<sup>37</sup> Efforts were made to secure additional locomotives for the southern railway from North Africa, from the U.S. and from Italy, in order to over-

<sup>36</sup> Historical Record, OCT (U.S.), AFHQ-NATOUSA, July-Sept. 1944, p. 16.

<sup>37</sup> Ibid, p. 28.

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come the existing locomotive shortage.

Plans for the construction of new tracks for the port of Marseilles called for 19 to be rebuilt during October, to supplement the 35 that had been used during the first part of that month. Rehabilitation of railway track proceeded rapidly in the port area and by 20 October 8 piers were served by rail lines. However, delays in operations resulted from the fact that French crews were slow in switching cars, requiring as much as three hours advance notice to effect a single switch. Some improvement in this respect was effected by maintaining a supply of empty cars at the storage tracks.

The Military Railway Service encountered difficulty in meeting the demand for ammunition in the forward areas. Beginning 14 October special ammunition received the highest priority, and during the next two weeks 2,340 railway cars hauled 37,095 tons of ammunition to the Armies. This program, however, held up movement of other commodities, resulted in labor difficulties, and was itself slowed up by frequent derailments.<sup>38</sup>

The rail program met with an unfortunate disaster at one of the railroad yards in Marseilles, when on 29 September a fire of undetermined origin destroyed 12 carloads of ammunition and 8 other cars loaded with miscellaneous supplies. The fire also destroyed 19 empty cars, heavily damaged 16 others and slightly damaged 14 more. Four American Army personnel and five civilians were killed in the disaster.

The necessity for relying on beaches at Marseilles for the discharge of personnel was partly overcome on 20 October when four personnel berths became available, and were fully employed. Following the method used at

<sup>38</sup>

History of the 6th Port, Vol. V, p. 14.

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across the upper side of sunken ships. To facilitate the rapid debarkation of personnel, their baggage was discharged from the ships to lighters, and the segregation and dispatch of the baggage took place at one of the port beaches.

One of the early problems faced by the 6th Port at Marseilles duplicated a problem it had encountered at Naples, for the best dock workers had been taken as prisoners of war to Germany, and the remaining laborers suffered from lack of sufficient food. Nevertheless, civilian laborers were hired by the thousands.<sup>39</sup> As the demand for workers increased and no more were available, the Port called for and received

Special arrangements were necessary for paying the French workers, and it was found expedient to place them under French control. This latter step was taken partly to meet the desires of French government officials and partly to build up a favorable

Reference will be made later to the increase in the number of workers employed at the port of Marseilles.

Initially another minor problem resulted from the fact that the electric light service of the port, as distinct from the city proper, had been destroyed. With the assistance of French officials who provided the underground cable system and additional linemen, the Port Signal Section erected eight generators at strategic points, and strung the necessary wires, thus providing a satisfactory lighting system.

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### Operating the Sub-Ports of Marseilles

While lines of communication to northern France were being rehabilitated and operations inaugurated at Marseilles, the satellite ports of Toulon and Port de Bouc also were brought into use. Port operations were begun at Toulon on 20 September when seven full-sized cargo ships were berthed and the discharge of cargo commenced.<sup>40</sup> Apparently some of this discharge included foodstuffs for civilian use, but 6th Port stevedores unloaded only military supplies. Vehicles also were unloaded at the port and promptly driven away because the drivers had accompanied the vehicles. Surplus troops that arrived were loaded on organizational vehicles or, if not vehicles were available, remained aboard ship for debarkation at Marseilles. The French naval detachment at Toulon as at Marseilles was tireless in its efforts to assist Allied military activities. Additional facilities were provided when a Navy CB (Construction Battalion) detachment reconstructed some of the damaged finger piers and berths for the discharge of cargo. It should also be noted that the U.S. Navy salvage organization assisted in removing sunken ships from the har-

By 31 October the 6th Port detachment was removed from Toulon and the French took command of the port. Thereafter it was used primarily by the U.S. Navy, and by the French for receiving civilian foodstuffs and supplies.

Operations at Port de Bouc were slow in getting started because it had received second priority on reconstruction. A small detachment of 6th Port men sent there to operate the port in early September, found

<sup>40</sup> Ibid, Vol. V, p. 18.

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the dock area heap of rubble and twisted iron with brick debris, broken down cranes, sunken ships and oily waters adding to the scene of destruction. In the city fires continued to smoke and burn in many sections, although the retreating Germans had left there several days before.<sup>41</sup>

Three principal projects occupied the Navy salvage and Engineer rehabilitation groups in the port and harbor. A sunken tug blocking one prospective berth had to be refloated; and cranes which had been blown into the water were raised in order to create space for berthing three ships. Of course, the necessary amount of mine sweeping in the harbor also was required. By 30 September four Liberty berths had been made available at Port de Bouc, and the 6th Port detachment was discharging 3,000 tons of cargo daily.<sup>42</sup> Later, that is February 1945, five full Liberty berths had come into use. By the end of the following March there were nine available.

In an effort to supply urgently needed cargo to the Armies in the forward area, more ships had been brought into de Bouc than could be discharged and cleared rapidly. Consequently, during October, as at Marseilles, port congestion and a backlog of cargo developed. In order to remedy this situation, cessation of cargo discharge was ordered for a 72-hour period so that the backpiling of 10,000 tons of supplies could be cleared up. When this backpile had been reduced to 2,000 tons discharging was resumed. The record of cargo discharge at Port de Bouc, which it will be recalled was used primarily for the discharge of bulk

<sup>41</sup> Ibid, Vol. VI, p. 22. However, at Port de Bouc storage capacity was found intact for 1,250,000 barrels of petrol, and for crude oil in excess of that amount.

<sup>42</sup> Historical Record, OCT (U.S.), AFHQ-NATOUA, July-Sept. 1944, p. 25.

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POL products because of the excellent storage facilities, is reflected in the following tabulation:<sup>43</sup>

U.S. Army Cargo Discharged at Port de Bouc

<u>Month</u>	<u>General</u>	<u>POL</u>	<u>Total</u> <sup>44</sup>
September	36,837	38,558	75,404
October	51,481	70,070	121,599
November	62,817	79,650	142,467
December	34,124	96,788	130,912
January	41,969	118,554	160,655
February	52,873	83,348	147,935
March	65,658	162,245	238,533

The Later Stages of Operation at Marseilles

During November 1944 Marseilles achieved a record discharge of 486,574 long tons of cargo (including the weight of vehicles discharged), a record that was never again equalled. For all southern French ports the discharge during November amounted to 636,575 long tons of cargo, a record not surpassed until March, when 708,799 tons were unloaded.<sup>45</sup> According to 6th Port historical reports, the failure to maintain the November record at Marseilles, which meant a failure to utilize the full discharge capacity of the port, was attributable to a lack of ships for discharge and a lack of transportation.<sup>46</sup> The shortage of transportation was a serious handicap in both northern and southern France, contributing to, although not wholly responsible for, a shipping congestion during the latter part of 1944 and the early part of 1945, at all Euro-

<sup>43</sup> History of the 6th Port, Vol. VI, Exhibit D.

<sup>44</sup> The total includes the weight of coal and vehicles discharged, as well as general cargo and POL.

<sup>45</sup> The fact that discharge at all French ports reached a peak figure during March 1945 is accounted for largely by the discharge of 162,245 long tons of POL products during that month, all of it at Port de Bouc.

<sup>46</sup> History of the 6th Port, Vol. VI, p. 5.

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pean ports operated by U.S. forces. The record of Marseilles in clearing up the congestion, however, was better than that of northern European ports, as a later chapter of this monograph will emphasize.

Progress in the methods of operating at the port of Marseilles was made possible by the continued increase in the number of available berths. By 31 March 1945 there was a total of 68 berths in use, including those for Liberty ships, "one-half" Liberty ships, coasters, personnel ships and tankers. Ultimately, it was possible to turn over six piers and the Old Port area to the French for handling civilian foodstuffs and supplies. This division of the port was effected by 1 March 1945, and it left 12 piers for large ships and the beaches for 6th Port operations.<sup>47</sup> During the month following the new arrangement, 71,699 tons of cargo were discharged for civilians, bringing the total amount of civilian cargo discharged since November 1944 to 2,264,717 long tons.

Port operations also were improved in December 1944 by the temporary assignment of a detachment from the 3rd Port, formerly operating at Oran. Furthermore, the number of cranes and the amount of available port equipment continued to increase, although shortages in such equipment persisted. By the end of December 1944 71 cranes were available at Marseilles and these later were supplemented by a 150-ton French owned crane and a 100-ton U.S. owned "Atlas" crane, transferred from Naples.<sup>48</sup> Occasionally, discharge of heavy-lift cargo was assisted by

<sup>47</sup> Ibid, p. 7. The only limitation placed on French operation of their section of the port was that when military unloading necessitated it, the southern or French section would be placed at U.S. Army disposal.

<sup>48</sup> A 30-ton floating crane towed from Naples capsized and sank when only nine miles from Marseilles.

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the arrival of a British crane ship, which by itself was able to place ashore locomotives and railway rolling stock carried aboard. The extent of the utilization of other port equipment is indicated by the report of 37 fork lift trucks and 10 tractors repaired at the port during November 1944.

The need for harbor craft, including tugs and barges (both powered and dumb barges), was met by requisition on the U.S. and transfers from other ports in the theater. During 1944 knocked-down barges were received at Naples, assembled there and towed to southern France. For example, 36 100-ton Quonset barges were received during September, and 18 arrived in October. Later these were towed to Marseilles. Towing operations received a slight setback during the fall when one of the four large tugs employed between Italy and southern France capsized and sank. Later Marseilles took over its own work of assembling cranes and barges. The assembly and repair of marine equipment was materially aided by the arrival during March of the 107th Port Marine Maintenance Company.

In response to requests from French officials during January, the 6th Port worked out new contract forms for hiring French port workers, placing the latter under French supervision. This was intended to prevent strikes and avoid dissension and delays. A new method of feeding civilian dock workers also was worked out in January 1945, so that instead of preparing hot soup and biscuits for the noonday meal, unprepared rations were given to the French authorities, and they provided for cooking and distributing the food. An indication of the types of port labor employed is found in the statistics for the month of January 1945, when

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the daily average number of workers was: 5,775 U.S. troops, 6,346 French civilians, 4,806 POWs and 1,191 Indo-Chinese.<sup>49</sup>

The presence of a large number of foreign workers complicated the problem of preventing pilferage at the port. The black market was particularly active in France and the assignment of only three MP companies to the Port was insufficient to provide the protection necessary for thwarting diversion of military supplies into black market channels. Arrests in the Port area numbered only 600 in October, but rose to 1,744 in November and continued at about the same rate in succeeding months. Most of these arrests were civilians and the largest number were charged with pilfering. Even the erection of 30 miles of high fencing did not greatly reduce the amount of military goods pilfered.

Repair, rehabilitation and construction work at Marseilles included the erection of 400 poles by the Port Signal Corps to improve the lighting system, and the repair by the Port Engineers, largely through paving with asphalt or stone blocks, of 19 miles of road within the port area. Furthermore, 37 miles of the 54 miles of railway track located in the port area had been restored by March 1945.

During 1945 the port area witnessed the assembling of many railway cars, through the work of the MRS Railway Shop Battalions. A critical car shortage had developed during the first months of 1945, but the receipt of a large number of unassembled cars from the U.S. and their erection at Marseilles, had greatly aided in relieving the deficiency by 1 April 1945.<sup>50</sup>

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<sup>49</sup> Ibid, Exhibit A.

<sup>50</sup> Ibid, pp. 12-13.

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One factor which assisted administrative efforts at Marseilles was the reorganization of the Headquarters & Headquarters Company from a Mobile Port to a Major Port (Overseas). In response to a request from the Port Commander, Colonel Clarkson, Headquarters, ETOUSA, approved the reorganization on 4 April 1945, thereby increasing the supervisory strength of the unit by 20 officers.<sup>51</sup> Under the new setup, the 6th Port Headquarters consisted of 112 officers and 404 enlisted men. The benefit from the reorganization had been partly offset, however, by the necessity for meeting the urgent demand for enlisted men as infantry replacements. A request for such personnel first came during February 1945, and by the end of March, 14 percent of the then enlisted personnel strength had left for the Infantry training school. Most of these men had served with the 6th Port for 2½ years, and though for the most part they were replaced by limited assignment personnel, the replacements had received little experience in port operations and so had to be trained by the Port in their new duties.

Before concluding this account of operations at Marseilles, it is pertinent to call attention to the embarkation of personnel that occurred throughout the period of the European campaign. Embarkations had begun during September 1944, when 13,587 persons sailed from the port.<sup>52</sup> During the next month 40,101 persons embarked, and subsequently the monthly rate through March 1945 varied from approximately 13,000 to 25,400.

These embarkations, embracing personnel of many types which included

<sup>51</sup> Ibid, p. 4.

<sup>52</sup> History of the 6th Port, Vol. V, Exhibit I-1. This figure differs substantially from that found in Ibid, Vol. VI, Exhibit G-2, from which other statistics mentioned above are taken, except the 40,101 for October.

~~RESTRICTED~~ 297 -

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Army and Navy personnel, POW and repatriates, were but preliminary to the flood of embarkations that developed at the close of the war in Europe, for on V-E Day Marseilles served as one of the principal European ports for personnel departures for the Pacific theater and the zone of interior.

#### Transportation Organization in Southern France

Military administration of the Allied forces in southern France underwent a number of significant changes after D-Day, until the area had been completely incorporated in the European Theater of Operations. As already explained, mounting the invasion force and reinforcing and supporting it were carried out by the North African Theater of Operations under the Mediterranean Supreme Allied Commander. The North African Theater (NATOUSA) continued to command the invading forces as they advanced into Germany, until September 1944, when the Sixth Army Group was brought under the control of the Supreme Allied Commander of the

Logistical support for the Sixth Army Group, however, remained the responsibility of the Service of Supply, NATOUSA, until the following November. At that time, the administration of the base sections in southern France was shifted from SOS, NATOUSA (which had been redesignated Comzone, MTOUSA), to a newly activated Headquarters, Southern Line of Communications (SOLOC), that was placed under the control of Headquarters, Comzone, ETOUSA.<sup>53</sup>

A final change occurred in February 1945 when Headquarters, SOLOC,

<sup>53</sup> Strictly speaking, SOS activities in southern France had been administered by Headquarters, Comzone, NATOUSA, Advance. Historical Record, OCT (U.S.), AFHQ-NATOUSA, Oct.-Dec. 1944.

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was abolished and the base sections of southern France were placed in the same relation to Comzone, ETOUSA, as the other base sections in the theater. At the same time personnel of Headquarters, SOLOC, were distributed throughout the Comzone and some of the distinctive features of the SOLOC organization derived from the Headquarters organization, NATOUSA, were abolished. These successive changes, with emphasis on the transportation organizations, require more detailed explanation.

In August 1944 the Supreme Allied Commander in the Mediterranean area functioned through an Allied Force Headquarters (AFHQ). As explained in a former chapter, one of the general staff sections of this headquarters was a combined British-American unit called G-4, Movements and Transportation, because it was headed by the principal British Movements officer and the U.S. Chief of Transportation for supervising practically all Allied transportation activities. The U.S. Chief of Transportation was Brig. General G.C. Stewart, who at that time also served as Chief of Transportation of the U.S. theater organization (NATOUSA) and transportation officer of the U.S. theater Service of Supply. In effect, Brig. General Stewart headed a single staff, although he held three positions and a theoretic distinction was made between personnel serving in the OCT (U.S.), AFHQ, and Combined Office of the Chief of Transportation, NATOUSA, and the Office of the Transportation Officer, SOS, NATOUSA.<sup>54</sup>

The further distinctive feature of the transportation setup in the Mediterranean area was the British-American Office of the Director General, Military Railway Service, which was attached to AFHQ (specifically

<sup>54</sup> U.S. Army Transportation and the Italian Campaign, op.cit., pp. 113ff.

~~RESTRICTED~~ - 299 -



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to the Chief Administrative Officer) and had no direct responsibility to G-4, Movements and Transportation. Since the Director General was an American officer, Brig. General C.R. Gray, Jr., on U.S. Army matters he was responsible to the Deputy Theater Commander, NATOUSA. Furthermore, unlike the Director General, 2nd MRS, in the ETO, Brig. General Gray supervised railway construction and rehabilitation work and was responsible for the procurement of railway supplies and equipment, although the requisitions on the U.S. for such material were coordinated with the supply organization of the OCT (U.S.), AFHQ. These distinctive features of the Office of the Director General obtained during the period when Brig. General Gray's organization moved into southern France to support the Allied invasion there, until a reorganization of the 1st MRS occurred in February 1945.

From the several organizations described above, various echelons were drawn to support the invasion of southern France, and a Coastal Base Section was organized at Naples prior to D-Day.<sup>55</sup> This Coastal Base Section, operating under SOS, NATOUSA, took over from the 7th Army supply operations at the beaches on 4 September. As a matter of fact, some of the personnel of the base section had formed a part of the beach control group since D-Day. The base section headquarters moved to Marseilles as soon as that city was captured, and on 8 September became operative there. Two days later it was redesignated Continental Base Section, and then began full operations as a base section.

The rapid advance of the Allied armies northward to the Rhone Valley required the support of a base section organization in the forward

<sup>55</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 4.

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areas, so on 26 September Continental Base Section was redesignated Continental Advance (CONAD) Section, effective 1 October. The order authorizing this change also activated the Delta Base Section to take over control from the former Continental Base Section in the Marseilles area. On the day that it was activated, CONAD established headquarters at Dijon, France.

Prior to this time, that is on 12 September 1944, the Advance Section of SOS, NATOUSA, known as SOS, NATOUSA, Advance, established headquarters at Lyon. The transportation personnel for this headquarters were drawn from the OCT (U.S.), AFHQ. Incidental changes might be noted, in that during October SOS, NATOUSA, Advance, became Comzone, NATOUSA, and changed its headquarters location to Dijon. Furthermore, on 19 October new boundaries were established between CONAD and Delta Base Section, making the latter one of the largest base sections to be established on the Continent.<sup>56</sup>

These changes were preliminary to the order of 3 November which authorized the formation of Headquarters, SOLOC. The latter headquarters became operational 20 November, completely separating the control of operations in southern France from the Mediterranean Theater of Operations. Maj. General T.B. Larkin, former Commanding General, SOS, NATOUSA, was placed in command of Headquarters, SOLOC, and Brig. General Stewart became the Transportation Officer of that organization.<sup>57</sup> The Transpor-

<sup>56</sup>

Historical Record, OCT (U.S.), AFHQ, Oct.-Dec. 1944, p. 1. The forward boundary of CONAD was the rear boundary of the armies and the forward boundary of Delta Base Section was the northern boundary of the French departments of Ain, Rhone, Loire and the northwest boundary of Allier.

<sup>57</sup>

He also is referred to occasionally as the Chief of Transportation, SOLOC.

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tation Section, SOLOC, was staffed by 23 officers and 39 enlisted personnel, drawn from Brig. General Stewart's former offices. Since Headquarters, SOLOC, was no longer a combined staff, Brig. General Stewart was made responsible only to the Commanding General, SOLOC. Nevertheless, he organized his office along the lines that he had developed for the OCT (U.S.), AFHQ. All sections, except the Planning Branch were placed under either an operations or an administration branch (as shown in the accompanying chart), and they continued to exercise much the same sort of authority that they had in the Mediterranean theater.

It is interesting to note that in the absence of a War Department directive prescribing the duties for a Transportation Officer, Headquarters SOLOC itself itemized his general duties.<sup>58</sup> These duties included acting as adviser to the Commanding General and his staff on transportation matters; representing the Commanding General for transportation matters on planning and executive staff committees, on boards and at meetings on transportation matters; exercising technical supervision of T.C. facilities, activities, installations and troops, except the MRS and MRS troops; coordinating T.C. activities between the Advance and the Base Section; and exercising control over transportation requests placed on MRS to insure that the capacity of MRS was not exceeded.

It will be noted that in contrast to the position of the Chief of Transportation, ETO, the Transportation Officer, SOLOC, had no authority over the Military Railway Service, because the Director General, Mili-

<sup>58</sup> The SOLOC order describing these duties is found in Historical Record, SOLOC, Office of the Transportation Officer, Exhibit E. This order states that the general functions of the transportation officer will be those given in Chapter I, Section III, Field Manual 101-5, Staff Officers Field Manual, but that no specific duties are mentioned therein.

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# Transportation Section, SOLOC.

15 DEC. 1944

TRANSPORTATION OFFICER.  
BRIG GEN. G. C. STEWART

EXECUTIVE  
COL. THOS FULLER

PLANNING BRANCH  
COL. L. G. ZIMMERER

ADMINISTRATION BRANCH  
COL. L. G. ZIMMERER

OPERATIONS BRANCH  
LT COL. E. L. BARONAS

RAIL GROUP  
CAPT. W. R. DE YOUNG

HIGHWAY GROUP  
CAPT. E. R. O'CONNOR

MOVEMENTS GROUP  
MAJ. G. L. BENNETT

WATER GROUP  
MAJ. R. K. LEWIS

AIR GROUP  
CAPT. C. SCHUMAKER

PERSONNEL SUMMARY

1 BRIG GENERAL	2 1ST LIEUT.
5 COLONELS	0 2ND LIEUT.
5 1ST COLONELS	1 CWO.
4 MAJORS	1 WOJG
6 CAPTAINS	25 TOTAL OFFICERS
39 ENLISTED PERSONNEL	

COMPTROL GROUP  
MAJ. T. R. PALMERLEE

OFFICE ADMIN GROUP  
CWO. C. J. POTTHAST

SUPPLY GROUP  
CAPT. V. LITCHFIELD

TROOPS GROUP  
LT COL. S. R. WOODBURY

BAGGAGE GROUP  
1ST LT. C. W. RICHARDS

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# TRANSPORTATION ROUTES

SOUTHERN FRANCE

FEB 1945

SCALE 1" = 31.56 MILES



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tary Railway Service, was made responsible direct Commanding  
General, SOLOC. However, the Transportation Section was authorized to  
make allocations of rail lift to various users, through periodic Priority  
of Movement (POM) meetings. The allocation of shipping for the delivery  
of supplies from the U.S. to SOLOC was a function of ETOUSA, but the  
procurement of shipping for inter-Mediterranean or coastal movements  
became a function of the Transportation Section, SOLOC.<sup>59</sup> The movement  
of motor vehicles between base sections, or between CONAD and Army areas,  
was controlled and coordinated by the Transportation Section. The routine  
movements of personnel by air within, into or out of SOLOC were arranged  
by base section commanders and local air transport officers, but the  
Transportation Section, SOLOC, retained authority for determining  
what freight shipped by SOLOC agencies would move by air.<sup>60</sup> This meant  
that it handled all matters connected with air shipments out of or into  
SOLOC territory.

The Transportation Corps troop list set up for the Dragoon Operation  
by the OCT (U.S.), AFHQ-NATOUSA, appeared to be adequate for the  
limited assignment originally given the invading forces. The list scheduled  
for movement from Italy during August and September is shown in the  
tabulation below:<sup>61</sup>

T. C. Troops Moved in August or September

2 Hq. & Hq. Dets., Q.M. Group  
9 Hq. & Hq. Dets., Q.M. Battalion (Mobile)  
32 Q.M. Truck Companies (12 companies equipped with Dukws)  
4 Amphibian Truck Companies

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<sup>59</sup> Ibid, p. 6.

<sup>60</sup> Ibid, pp. 6-7.

<sup>61</sup> Historical Record, OCT (U.S.), AFHQ-NATOUSA, July-Sept. 1944, p. 18.

~~RESTRICTED~~ - 303 -



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- 7 Hq. & Hq. Dets., Port Battalion
- 28 Port Companies
- 1 Hq. & Hq. Company, Port (Mobile)
- 2 Q.M. Car Companies
- 2 Staging Area Companies
- 1 Regulating Company
- 1 Movement Control Company
- 2 Hq. & Hq. Det., Q.M. Battalion (Mobile)(Italian)
- 8 Q.M. Truck Companies (Italian)

In addition, the Military Railway Service scheduled a number of troop units which were to be taken off their assignments in Italy for operating the railroads in southern France. This list included the 703rd Railway Grand Division and the 713th Railway Operating Battalion which had moved to southern France before 1 September. During the latter month the 727th Railway Operating Battalion, Company "A" and the 759th Railway Operating Battalion, a detachment of the 788th Base Depot Company, an advance echelon of the 79th M.P. Battalion and the staff of the Office of the Director General, MRS - Allied Force, moved to southern France during September.<sup>62</sup>

These troops proved inadequate to the necessities of the situation in southern France, partly because the area in which the invading forces were expected to operate expanded over that originally assigned. As discussed previously, there was need especially for additional motor transport units. In meeting demands prior to 1 January, additional units were drawn from the Mediterranean theater, principally Italy, although some were secured from North Africa, from the ETO and from the U.S. By 1 January 1945 the European Theater had supplied a total of 7,412 additional Transportation Corps troops. The types of units to which this personnel was attached are not described in the theater historical re-

<sup>62</sup>

Historical Record, 1st MRS, Sept. 1944, pp. 1-2.

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ports.                      called that additional T.C. strength by activating units composed of personnel from former anti-aircraft units and that considerable reliance was placed on French civilian workers and prisoners of war.

#### Highway Operations

Q.M. truck companies brought into southern France were placed under the command either of the base sections or of the Armies. Not until 15 October was control of motor movements centralized in the Comzone, NATOUSA, Advance detachment. Thereafter all convoys passing between base sections to the Armies were cleared by the highway group of the Transportation Section of this detachment.

In addition to the intensive activities connected with the port clearance at Marseilles, there were certain other outstanding motor transport accomplishments during the early period of operations in southern France. For example, until a bridge could be restored near Sisteron on the rail line running north from the beaches to Grenoble, a 24-hour truck shuttle operation was inaugurated and operated with great success. During the same period the principal highway route from the coast to the forward areas passed through Grenoble. This route, although it passed through the mountainous area south of Grenoble, was capable of carrying the required amount of motor traffic, largely due to the speedy and efficient work of the Corps of Engineers in repairing strategic road bridges.<sup>63</sup>

At an early date two Movement Control organizations were given supervision over motor traffic in the coastal and Army areas, but they

<sup>63</sup> Historical Record, SQLOC, Office of the Transportation Officer, p. 22.

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were able to accomplish little because of the long expanses of road. The roads of southern France were found to be in satisfactory condition, although dry weather created a considerable amount of dust as the amount of trucking increased. Mild weather also permitted bivouacking at almost any point. To supply motor vehicles to appropriate areas proved to be one of the principal difficulties encountered.

About the first of October through traffic to the Armies was diverted from the Grenoble route to the Rhone Valley route. This action eliminated hazards encountered in the mountainous areas and separated American and French traffic, since French traffic continued to utilize the Grenoble route. By the time of this shift Movement Control had begun to function at Marseilles and had established traffic posts as a number of northern cities. Reliable statistics for the amount of truck movement during this period are not available, but a check of the traffic control post at Sisteron on 20 September revealed that 800 trucks passed through during the 24-hour period, bound north for Army dumps.

By 4 November Movement Control office of the CONAD Section was established at Dijon, and within a short time interbase section movements came under the control of the Transportation Section, SOLOC.<sup>64</sup> Further progress in motor transport resulted from the effort to increase the driver strength of all units operating in the SOLOC area. Initial steps to accomplish this were taken during the period of control under the North African Theater of Operations and were continued thereafter. On 10 November, an ETOUSA directive permitted 45 extra drivers for each Q.M. truck company, but to a certain extent the directive could not be

<sup>64</sup> Ibid, p. 23.

RESTRICTED

priority given to driver reinforcements.

and the 1944 the over-the-road vehicle strength was 1,000 vehicles. At Marseilles 2,659 vehicles were assigned to the 6th Army Group, 2,333 vehicles were assigned to military, French military, civilian and other units. Subsequently, the number of vehicles available considerably increased, for on 10 December the Delta Base truck strength at Marseilles hit a peak of 3,200 vehicles. The number tended to fluctuate thereafter, those assigned to Delta Base being reduced and those under other commands considerably increased.

Irrespective of the number of vehicles, effectiveness of truck movement was enhanced early in December by the arrival of the 10-ton semi-trailer and 5-ton tractor vehicles for twelve truck companies.<sup>65</sup> This equipment had been planned for and requisitioned during August 1944 by the Chief of Transportation, NATOUSA.

The necessity for increasing the number of trucks in the CONAD section, the capacity of rail lines from the coastal area northward increased, resulted in the establishment on 30 January of a pool of approximately 1,000 vehicles at Dijon. Rail lines were operating north of Dijon but were unable to forward the tonnage required by the Armies. This pool was formed in part from four truck companies equipped with the standard 2½-ton trucks and six companies equipped with 10-ton semi-trailers and tractors drawn from Delta Base Section; six additional companies equipped with 10-ton semi-trailers and tractors were drawn from

<sup>65</sup> Ibid, p. 24.

RESTRICTED

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other Comzone, ETO sections. Operations of this truck pool continued until the rail capacities increased sufficiently to supply troops with all requirements.

#### Railway Operations in Southern France

The inauguration of railway operations at the beaches and at Marseilles have been described, but it is appropriate to add a short discussion of 1st MRS activities northward from the coast. As previously mentioned, within two days of the landings in southern France, the Seventh Army had placed in operation a narrow gauge railway line from Frejus, near Delta Beach, to St. Maxime. Two days later three trains began operating daily between these two points.<sup>66</sup> Shortly thereafter a standard gauge line was put in operation from St. Raphael (Camel Beach) westward to Aix en Provence, with a capacity of 3,500 tons per

The line from Aix northward to Grenoble was found operable, except for the bridges across the two rivers near Meyrargus and Sisteron. It was in this area that a truck shuttle service was established for a but by 9 September a bridge, incapable of bearing a locomotive but strong enough for loaded railroad cars to be pushed across, was erected across one river. A week later a bridge was completed across the adjacent river, and so a through line, with a capacity for 1,500 tons of freight a day, was opened to Grenoble.

Meanwhile, personnel of the MRS had been surveying the rail lines in the Rhone Valley. Two double track lines ran on either side of the Rhone River, and they were found to be practically undamaged, except for the destruction of all bridges. The Engineers and the Company "A" troops

<sup>66</sup> Ibid, p. 20.

~~RESTRICTED~~ - 308 -

~~RESTRICTED~~

battalions restored the bridges on the east river first, and by 25 September a line was open from the coast to

This line had an estimated capacity of 3,000 tons per rail line to Grenoble had an equal capacity. About the same

tation Section, SOS, NATOUSA, Advance, held its first Priority of Movement (POM) meeting and received bids totalling 8,433 tons to be moved each day during the following week. However, bids could be accepted for the movement of only 4,923 tons a day.

Meanwhile, that is on 15 September, the Office of Director General, MRS - Allied Force, had been set up at Lyon, and with the arrival of a large portion of the remainder of his office, it prepared to supervise directly the rail operations to the Sixth Army Group. For a time the Director General retained authority over railway operations in Italy as well as in southern France, but by November he confined his attentions solely to operations in France. He speeded the rehabilitation of railway lines and endeavored to secure additional rolling stock and motive power to meet the ever increasing demands for railway movements.<sup>67</sup>

As the rail capacities increased, bids and acceptances for movement of freight by rail kept pace. By 4 October accepted bids totalled 8,350 tons per day. Within another week they had risen to 12,000 tons, and by 16 November they had increased to 14,000 tons per day. With the formation of SOLOC Headquarters in November, the Rail Group under the Transportation Officer, SOLOC, took control of preparing the bids for the

<sup>67</sup> General J.L. Devers, Commanding General, Sixth Army Group, has testified personally to the speedy rehabilitation and effective operation of railway lines in southern France. Address to the American Military Institute, 3 June 1946.

~~RESTRICTED~~ - 309 -



~~RESTRICTED~~

movement of all freight by rail.<sup>68</sup> By 26 December bids were accepted for the movement of 15,000 tons of freight per day.

As previously mentioned, one of the handicaps to expanding railway operations was the lack of locomotive power. A large portion of the supplies ordered by the MRS for operations for the invasion had been received by the end of 1944. That portion which was not received included locomotives and track material. Of the original ten 65-ton Diesel engines and 87 standard steam locomotives ordered, all of the Diesels had been received by the date mentioned, but only half of the steam locomotives. To offset this deficiency, locomotives were obtained from North Africa and Italy, but the supply still was inadequate.<sup>69</sup> During January the locomotives previously undelivered from the U.S. were landed at Cherbourg by the Seatrains LAKEHURST and TEXAS, and when the locomotives had been placed in operation, they considerably eased the power situation in southern France.

Unfortunately, the excellent inland waterways of southern France could not be used to any large extent for moving military cargo. Initially, the Rhone River and its tributaries were unserviceable because of demolished bridges which blocked barge passage. Then as winter closed in, many of the waterways became frozen, and the spring thaws caused extremely high waters which prevented navigation. The principal accomplishments of the inland waterways of southern France appear to have been the movement of a few hundred tons of cargo a day for port clear-

<sup>68</sup> Historical Record, SOLOC, Office of the Transportation Officer, p. 20.

<sup>69</sup> Fifty-five locomotives were received from North Africa, and 50 were received from shipments destined for Italy but diverted to southern France.

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ance out of Marseilles and Port de Bouc.

In concluding the present discussion of operations in southern France it is appropriate to note the commendation forwarded the Commanding General, SOLOC, from Lt. General Lee, Commanding General, Comzone, ETO.<sup>70</sup> In this commendation he stated that the accomplishment of SOLOC in the support of field forces in the Army had been magnificent and constantly set a high standard for the entire Comzone. He added, "SOLOC has constantly unloaded many more tons per ship per day than the rest of the theater." The commendation concluded on a prophetic note stating that the consolidation of SOLOC with the Headquarters of Comzone, ETOUSA, would tone up the Comzone structure, making all the more certain an outstanding performance in the continuation of the supply and support of the American forces in the theater.

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<sup>70</sup> Ibid, Addenda.

~~RESTRICTED~~ - 311 -

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CARGO DISCHARGED BY THE U.S. ARMY AT MARSEILLES,

8 Sept. 1944-31 Mar. 1945<sup>71</sup>  
(Long Tons)

	<u>General</u>	<u>Vehicles</u>	<u>Coal</u>	<u>POL</u>	<u>Total</u>	<u>No. of Vehicles</u>
Sept. 1944	110,689	32,798	2,810	1,163	147,460	8,362
Oct.	307,344	81,525	15,496	44,862	449,227	17,578
Nov.	417,139	46,147	7,011	6,277	486,574	10,053
Dec.	403,781	32,777	30,886	5,574	473,018	5,324
Jan. 1945	306,095	22,016	16,229	7,447	351,787	3,276
Feb.	320,035	90,084	39,990	20,701	470,180	14,781
Mar.	<u>297,918</u>	<u>139,424</u>	<u>28,587</u>	-	<u>467,180</u>	<u>23,140</u>
Totals	2,163,001	454,771	141,009	86,024	2,846,056	82,514

<sup>71</sup> History of 6th Port, Vol. VI, Exhibit B.

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CARGO DISCHARGED BY THE U.S. ARMY AT ALL SOUTHERN FRENCH PORTS,  
8 Sept. 1944-31 Mar. 1945<sup>72</sup>  
(Long Tons)

	<u>General</u>	<u>Vehicles</u>	<u>Coal</u>	<u>POL</u>	<u>Total</u>	<u>No. of Vehicles</u>
Sept. 1944	150,967	56,436	2,810	39,721	249,934	14,207
Oct.	387,590	106,808	15,496	114,932	624,826	24,242
Nov.	484,292	56,299	7,011	86,973	634,575	10,104
Dec.	437,905	32,777	30,886	102,362	603,930	5,324
Jan. 1945	348,064	22,148	16,229	125,279	511,720	3,316
Feb.	373,558	90,180	50,958	104,049	618,745	14,771
Mar.	<u>366,759</u>	<u>139,325</u>	<u>39,219</u>	<u>162,245</u>	<u>708,799</u>	<u>23,140</u>
Totals	2,549,135	503,973	162,609	735,561	3,952,529	95,104

<sup>72</sup> Ibid, Exhibit B-8.

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